

REPORT

OF THE

70

SUPERINTENDENT OF CENSUS

MADE TO THE

SECRETARY OF THE INTERIOR.

1884.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1884.

1884

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REPORT OF THE SUPERINTENDENT OF CENSUS.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
Washington, D. C., November 13, 1884.

SIR: I have the honor to submit the following report of the operations of this office during the past year. At the date of the last annual report of the Superintendent of Census, September 15, 1883, there had been published only the Compendium of the Tenth Census, consisting of two octavo volumes of 923 and 856 pages, respectively. During the year which has since elapsed the following numbered volumes of quarto size have been published:

Vol.	Subject.	Pages.
1	Population	1, 050
2	Statistics of Manufactures	1, 248
3	Statistics of Agriculture	1, 149
4	Agencies of Transportation	800
5	Cotton Culture in the United States	924
6	do.	848
7	Valuation, Taxation, and Public Indebtedness	919
8	Miscellaneous volume containing four reports, viz:	
	On Newspapers and Periodicals	1, 111
	On Alaska, its Resources, &c.	
	On the Alaskan Fur Seal Islands	
	On Ship-Building	

Volume 9, a quarto of 620 pages, devoted to the statistics of forestry and the lumbering interests of the country, and supplemented with a portfolio of maps, showing the distribution of the forests in the several States, will be published in the month of November. It is now in the hands of the Public Printer, and all printed except the index, which is being rapidly prepared.

Volume 10, a quarto of 868 pages, will contain the following-named monographs: (1) Quarries and Building Stones; (2) Petroleum; (3) Coke. This volume is stereotyped, and the entire edition has been printed. It only awaits the receipt of a few illustrations before being bound and published. It will doubtless appear simultaneously with or immediately after the issuance of volume 9.

The little work remaining to be done by special agents is as follows:

The text of the report on the Defective, Dependent, and Delinquent Classes of the Population is being prepared by Mr. F. H. Wines. A like labor is being performed by Surgeon J. S. Billings on the Mortality of the Population. Mr. J. R. Dodge is similarly engaged on the report re-

lating to Sheep Husbandry, and an introductory chapter to the report on the Production of the Precious Metals is being prepared by Mr. Clarence King. This latter report, which will be comprised in two volumes, is otherwise ready for the printing-presses, having been put in type and stereotyped some months ago.

The report by Surgeon J. S. Billings on the Mortality of the Population has, in the main, been stereotyped, a few small tables, the introductory text and the index only remaining incomplete. The two volumes containing this report can readily follow the publication of the volumes devoted to the report on the precious metals.

The report by Prof. Raphael Pumpelly on the Production of Minor and Base Minerals lacks only the introductory text before being placed in the hands of the Public Printer for publication.

The manuscript of the several monographs, constituting a report on the water-power of the country, is all in hand, with illustrations, and ready in turn for the printer.

The report on the Fisheries of the United States, by Prof. G. Brown Goode, is also complete and in hand, as is also the report on the Social Statistics of Cities, by Col. Geo. E. Waring, jr.

A monograph by Prof. F. R. Hutton on the Manufacture of Shop and Machine Tools, vividly illustrated, has been stereotyped and is at the Government Printing Office ready for publication. It will form part of a volume devoted to the statistics and history of the manufacture of mechanical contrivances. The remainder of the matter for this volume is also in hand and only requires arrangement for the printer.

A report by Special Agent J. D. Weeks on Wages paid in Manufacturing Industries in the United States is substantially completed.

The publication of this paper has already been ordered by the House of Representatives, to be issued as a miscellaneous House document. It will, therefore, first be given to the public in this form.

A volume devoted to the Statistics of Fire and of Life Insurance will form part of the final report. The manuscript is in hand and only requires arrangement for the printer.

Statistics relating to the manufacture of gas are complete and await publication. A report on the ice crop and its consumption is also finished.

With the exceptions heretofore noted the only unfinished work in the preparation of our report relates to the tabulation of statistics of schools, churches, and libraries. These completed, the entire force would be employed in revision, proof-reading, &c., necessary, in co-operation with the Public Printer, while the several volumes are going through the press. Estimates of the amount required to bring the complete report to publication have already been submitted. By the terms of the act of July 7, 1884, making appropriations for sundry civil expenses, it was provided that the sum of \$30,000 should be appropriated "for the work of taking the Tenth Census and closing the Bureau on January 1, 1885." Even with the retention of the entire force employed at the date of the passage of this bill, it would have been impossible to complete the final report within the limitation of time therein prescribed; but the inadequate sum appropriated necessitated a heavy reduction in our clerical force, and has thereby correspondingly delayed the work of the office.

Furthermore, the same act authorized the printing of additional copies of the Compendium of the Tenth Census and of various monographs, thus devolving upon the Superintendent and his already crippled force,

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REPORT OF THE SUPERINTENDENT OF CENSUS.

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a serious burden of extra labor, which was not considered in fixing the limitation of time and of appropriation prescribed by this act.

I have, therefore, the honor to request that a recommendation may be submitted to Congress that the time for the completion of all tabulations and the preparation of all original matter for the final report on the Tenth Census be extended until July 1, 1885; that the additional sum of \$45,000 already submitted in estimate for a deficiency in the present fiscal year be appropriated, and that the further appropriation of \$10,000 be made for the expenses of such force as shall be required in this office during the fiscal year ending June 30, 1886, for revision, proof-reading, &c., in co-operation with the office of the Public Printer, while the remaining volumes of the report are being published.

Very respectfully, your obedient servant,

C. W. SEATON,
Superintendent of Census.

The SECRETARY OF THE INTERIOR,
Washington, D. C.

From annual reports of the Secretary of the Interior on the work of the Census.

1889

Census Office established in Interior Department March 1, 1889. Mr. Robert Porter appointed Superintendent.

Preparations for the Eleventh Census being made.

Establishment of permanent Census Bureau recommended.

1890

Organization of the office, and appointments.

Mortgage inquiry added by Act of Feb. 27, 1890.

Scope of the Eleventh Census.

Condition of work of the Eleventh Census Oct. 22, 1890, as compared with that of the Tenth Census at a corresponding date.

Population of the United States.

Opposition of people to answering questions.

From annual report of the Secretary of the Interior on the work of the Census.

1891

Great bulk of census work completed.

Announcement of official population made Nov. 26, 1890, has never been changed. The apportionment law was passed nearly two years sooner than at previous censuses.

Mechanical tabulation has increased accuracy of the work, and admits of tabulation of important facts and complicated tables far in advance of previous censuses.

Permanent Census Bureau recommended.

Enumeration of veterans.

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OF THE

SUPERINTENDENT OF CENSUS

TO THE

SECRETARY OF THE INTERIOR

JUNE 30, 1892.

WASHINGTON, D. C.

U. S. CENSUS PRINTING OFFICE.

1892.

REPORT

OF THE

SUPERINTENDENT OF CENSUS

FOR THE FISCAL YEAR ENDED JUNE 30, 1892.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
WASHINGTON, D. C., June 30, 1892.

SIR:

I have the honor to submit herewith a report of the operations of the Census Office for the fiscal year ended June 30, 1892.

Before referring to the detail work of the office, I beg to call attention to the fact that the census committee of the Senate and the census committee of the House of Representatives have taken active steps in the direction of making the Census Office a permanent bureau of the Interior Department. In your annual report for the year ended June 30, 1889, I find the following paragraph:

Upon the recommendation of the Superintendent it is suggested that our decennial census would be far more complete and satisfactory if the Census Office were made a permanent bureau. The work of preparation for a census such as that of the United States is as vast and important as the actual enumeration itself. The demand for exact statistics is constantly increasing, and the importance of greater accuracy and care in securing statistical data of all kinds would seem to indicate that as soon as the volumes of one census are published the preparatory work of another should commence. Under the present system it is impossible to keep the avenues of information open, while the skilled statisticians, experts, and trained clerks become scattered, and there is great danger of repeating mistakes and attempting costly experiments. A permanent census office would be undoubtedly in the interests of economy and of statistical science, and would result not only in more efficient work but in greater rapidity of publication.

In 1890 both the Senate and the House of Representatives received numerous petitions praying that this bureau be made permanent, and declaring that such a course would not only greatly enhance the value and increase the accuracy of statistical reports, but would result in

great economy to the government. In obedience to this demand the Senate passed the following resolution :

Resolved, That the Secretary of the Interior is hereby directed to consider the expediency of the establishment of a permanent census bureau, and to embody the results of his consideration with a draft of a bill, should he consider it expedient, for the establishment of such census bureau, in a special report to be made to the Senate at the opening of the Fifty-second Congress.

In compliance with your instructions I made a thorough investigation of the matter of establishment of a permanent census bureau, and prepared the draft of a bill, as required by the Senate resolution.

In the preparation of this report I consulted with statisticians and experts and obtained by correspondence an expression of views from commercial organizations, officers of state boards of health, agricultural organizations, state superintendents of education, bishops and other prominent churchmen, officers of institutions for the insane, deaf, dumb, and blind, etc., all of whom are necessarily interested in any movement looking to the improvement of the present system of collecting and compiling census statistics. In this way I have been enabled to present more detailed information than would otherwise have been possible, and through the Secretary of the Interior to furnish the Senate expressions of opinion on this subject from the various organizations and individuals referred to, as well as from some of the most eminent statisticians in this country and abroad. I have stated to you in previous reports that my own experience and study convince me that the establishment of a permanent census bureau would result in more scientific methods of securing the statistics of the United States than are possible under the present system. Under such a bureau these statistics will be more economically gathered, they will meet more nearly the scientific standards of statistical comparison, and the results will be more trustworthy and more satisfactory in every respect.

The abandonment of the Census Office at the completion of each decennial census involves the scattering of the expert chiefs of divisions, trained in the handling of great masses of statistics, thereby losing the benefit of proved and tested methods of carefully determined principles of comparison and analysis, which are the prime essentials in determining the value of governmental statistics. It is true the threads may be gathered again, but each decennial census office is a law unto itself. However much it may respect the traditions of its predecessors, it is at liberty to ignore them, to revive them, to destroy them, and it is certain to more or less confuse them. While there may be little danger when the chief of the census is

imbued with the scientific spirit and informed as to the practical uses of statistics, yet, in the nature of things, the failure to preserve complete records and the setting of strange hands at the work ab initio must be recognized as out of harmony with the exact science which the gathering of statistics has become. The danger and the disadvantage will increase in rapid ratio as the country grows, and the decennial burden its growth will impose upon the Census Office will become more crushing, and there will come a time when this system, yoked to the constantly increasing scope and number of schedules demanded, will break down of its own weight.

I am induced at this time to make this appeal for a permanent census, not from any personal motives whatever, but because with the publication of the Eleventh Census public interest is likely to wane, and unless action is taken at this session of Congress the matter is likely to be put off until the time is near for taking another census, and then the same difficulties will have to be met, complicated by the increasing magnitude of the work.

The report entitled "A Permanent Census Bureau" (Ex. Doc. No. 1, Fifty-second Congress, first session, Senate), making a pamphlet of 185 pages, was printed by order of the Senate, and formed the basis of an inquiry by the House Committee on Census. The House Committee held a number of sessions, all of which were attended by the Superintendent of Census and statistical experts. Among those called before the committee were the following well known statisticians:

Hon. J. Kendrick Upton, in relation to statistics of wealth, debt, and taxation.

Mr. Thomas Donaldson, in relation to statistics of Indians.

Mr. Joseph D. Weeks, in relation to statistics of coke, natural gas, petroleum, glass, and petroleum refining.

Hon. Francis A. Walker, Superintendent of the Ninth and Tenth Censuses.

Dr. John S. Billings, United States army, in relation to vital statistics, the statistics of special classes, and the social statistics of cities.

Mr. Frank R. Williams, in relation to statistics of manufactures.

Hon. Carroll D. Wright, Commissioner of Labor.

Mr. J. A. Price, chairman of the statistical department of the National Board of Trade.

The testimony was so unanimous in favor of a permanent census bureau that several members of the committee at the close of the hearing declared that the advisability of making the bureau permanent was so apparent it was impossible even to imagine what objections could be urged against it. Whatever Congress may decide to do in this matter, I feel that the Census Office has left nothing undone, either in the report or in the examinations before the committee, to bring about this desirable legislation. A glance at the report and at

the testimony, I think, will show more effectually than any words of mine the necessity for immediate action by Congress in this matter. Until the census is established on a permanent basis there will always be considerable trouble with the decennial enumeration of the population and the collection of statistics relating to the various subjects within the scope of a census investigation. I sincerely hope, therefore, that you will find it consistent in your next annual report to emphasize the recommendation contained in your report of June 30, 1889.

THE FEDERAL CENSUS VINDICATED.

I have already had occasion to call attention to the fact that the real faults of the census are generally those not complained of. In the report of the operations of this bureau for the six months ended December 31, 1890, a summary was presented of the several complaints from various sources against the census, which, as I conclusively showed at that time, were due not so much to the defective work of the enumerators as to their failure to find the total population expected, or to the superiority in respect to numbers attributed to some rival community. While the complaints against the census took almost an epidemic form in the fall and winter of 1890 and the spring of 1891, the actual faults of enumeration were infinitesimal when subjected to re-examination or re-enumeration. Take, for instance, New York, where the clamor was perhaps the loudest, and we find the state authorities, eighteen months after the federal census, trying to bolster up their own enumeration by declaring that in four or five hundred towns and villages it corresponded with the federal enumeration of June, 1890. This fact, together with the farcical, if not fraudulent, enumeration by the state authorities of New York city and Brooklyn, has completely vindicated the work of the federal enumerator. You will recall the fact that both St. Paul and Minneapolis fought as unreasonably and as bitterly against re-enumeration of their respective populations as New York did for a recount. Your final decision that the two former cities should be re-enumerated exposed a glaring and systematic attempt of local parties to pad the census.

MANUFACTURING STATISTICS OF PHILADELPHIA.

Happily for the Census Office the decade ended in 1890 has been the most remarkable in the industrial and commercial history of the nation, and for that reason perhaps more than for any other we have almost no complaints against the work of those divisions of the census which have been engaged in the collection of the statistics of manufactures, mining, and transportation. The work in all these branches of the census has been exceptionally well done by persons

thoroughly qualified by training and experience. Perhaps the only exception to this was the city of Philadelphia, where the agent in charge of the work in relation to manufactures seems to have adopted an extravagant and erroneous system of counting as manufacturing establishments a multitude of employments rather to be classed with shopkeepers and petty tradesmen. With your approval, the special agent originally appointed for this work was removed, and Mr. Charles Heber Clark, secretary of the Manufacturers' Club of Philadelphia, a man of high standing, integrity, and statistical ability, was appointed to make the re-enumeration of the entire city of Philadelphia. This work has been accomplished, and the report of Mr. Clark, which I have the honor to submit herewith and make part of my report, shows conclusively the wisdom of your decision that the industrial census should be retaken in that city. I am satisfied that when the citizens of Philadelphia have an opportunity to examine Mr. Clark's report they will rejoice in the fact that the frauds were discovered in time to rectify them within a reasonable time after the taking of the Eleventh Census, and that they were not left to be discovered in 1900, and thereby give this great industrial center an injurious showing in her comparative statistics at that time.

In the report (a) Mr. Clark says:

The task of re-examining the whole of the census of the manufactures of the city of Philadelphia was begun under my direction on April 1, 1892, from the office at No. 259 South Fourth street. The force was composed of 55 persons, including men employed in performing clerical work. The field work, excepting the examination of a few odd schedules, was practically completed on July 28.

The whole number of schedules re-examined since February 29, 1892, when the preliminary test of the accuracy of the census was begun, was 22,619.

The proportion of incorrect to correct schedules in the whole mass was discovered to be as follows:

Total number of schedules re-examined	22,619
Total number of correct schedules	18,005
Total number of incorrect schedules	9,614

Thus the schedules found to be incorrect were 42.5 per cent of the whole number dealt with.

These figures of course convey no notion of the value of the manufactured product involved. The amounts set aside under the requirements of the law and of common honesty have been carefully tabulated, and this tabulation shows that, of the total value of manufactured product returned by the original special agents, it is necessary to reject, as not properly having a place in the census of the manufactures of the city of Philadelphia, the sum of \$156,944,940.

The gross decreases amount to	\$158,390,655
The gross increases amount to	1,445,715
Making a net decrease.....	156,944,940

a Mr. Clark's report was not written until some weeks after the date of this report, but as it was a matter properly belonging to the fiscal year 1891-1892, I have included it in this report.

The number of establishments the product of which was increased was 210.

The large dimensions of this rejected amount will serve to indicate to a partial extent the measure of the dereliction of the sworn officers of the government who performed the original work.

That the reduction of the alleged product of the manufactures of Philadelphia by a sum so great may be fully justified it has been regarded as expedient that the nature of the returns for a few of the industries which have been set aside as not properly deserving to be classified as manufactures shall be indicated in this report. Some of the largest of these industries, with their reported products, are represented in the following table :

CLASSIFICATION.	Number of establishments.	Value of product.
Industries reported with a product less than \$500 per annum, omitted under the law.	828	\$263,026
Industries reported with a product of more than \$500 per annum but having less.	1,315	3,053,819
Industries not in operation in the census year	490	3,586,896
Dealers and journeymen not manufacturing for themselves	1,073	10,731,403
Reported industries having no existence	168	1,315,473
Industries duplicated in the returns	283	4,863,373
Industries not in Philadelphia	19	4,240,173
Journeymen tailors working for manufacturers who make the returns	463	2,206,750
Publishers who do no manufacturing	123	5,273,568
Florists and gardeners	153	876,719
Laundries	90	831,382
Artists, architects, and draughtsmen	129	632,569
Wholesale liquor dealers, blenders, and compounders not manufacturers	81	13,429,337
Packers of tobacco (warehouses and offices only)	7	1,712,500
Assorting old rags, waste, iron, paper, etc. (mostly junk shops)	183	4,082,024
Street paving, curbing, sewer building, etc	75	2,713,601
Cellar digging, excavating, hauling dirt, manure, garbage, ashes, etc	93	1,880,704
Butchers who slaughter for their own retail trade	244	3,676,057
Butchers whose returns were found to be incorrect	117	2,051,812
Contractors and builders who sublet all their work, which is reported by others.	38	8,769,326
Contractors who sublet part of their work, and reductions made in their returns.	252	19,221,990
The United States mint	1	24,301,333
One establishment in operation a portion of census year and returned for the whole year (reduction of).	1	18,216,203
Other industries found upon examination to be incorrect and reductions made.	3,388	19,015,372
Total number of rejected and changed schedules, with reductions made.	9,614	156,944,940

Besides the industries here enumerated many others represented as having smaller products were included in the original returns in defiance of the law, of the instructions of the bureau, and of considerations of common sense. Among these may be named schedules for livery stables, horse clippers, piano tuners, whitewashers, church sextons, typewriters, carpet cleaners and carpet layers, odorless excavators, architects, butter printers, garbage collectors, "haulers of manure", "haulers of butchers' offal", bee keepers, rag pickers, and "layers out of the dead". The veterinary department of the University of Pennsylvania, a medical school, was returned as a manufacturing establishment. A crematory at Germantown was treated in the same manner, and the product was designated as "human ashes and niches". Several theaters were classified among manufactories and the product given as "stage carpentering and scene painting". Large numbers of journeymen tailors doing piecework, which is included in the returns of their employers, were represented as manufacturers.

Distilleries, flour mills, and other manufacturing establishments located outside of Philadelphia, but having offices or agents in the city, were included in the returns.

The attempt to swell the totals of the manufactures of the city by such means as this might possibly be attributed to the stupidity of the original officials but for the fact of the existence of abundant evidence that there was a purpose to obtain large returns by resort to methods of a plainly fraudulent character. To many hundreds of the schedules, prepared by different special agents, forged names were attached. These forgeries included the names of persons who had been long dead when the census was taken, of persons who were living and readily accessible at that time, but who would not have been likely to consent to attach their signatures to a false report, and of persons believed to be wholly fictitious. Persons who can write their names were represented as making their mark instead of writing signatures. Persons who can only sign with a mark were reported as writing their names. In many instances the forged names were spelled wrongly and the spelling was corrected by the persons alluded to. A boy of 15 who had never seen the schedule was returned as doing a business upon his own account of \$460,000 a year; a dyer in a well known carpet mill was returned on a forged schedule as a builder with a product of more than \$400,000; a college professor was fraudulently represented as a builder with a product of nearly \$500,000; a real estate agent was returned as a builder of houses with a product approximating \$1,000,000; a lumber dealer was returned with a product of \$400,000. Scores of schedules were returned for establishments which, when looked for, were found to have no existence. Many such imaginary places were named as located upon vacant lots and upon street intersections.

Much exceeding the forgeries in number were the schedules that were signed in blank by the heads of small establishments and filled in by the special agents, as their fancy suggested. Almost uniformly these schedules represented amounts of product largely in excess of the fact. In each case I have had them corrected by the parties in interest, and the reductions thus made, together with the rejections of the products in the forged and fictitious schedules, will account for a considerable portion of the gross amount which has been set aside as indicated above.

It is worth while to say that in every instance in which any doubt existed respecting the acceptance or rejection or the alteration of a schedule the city of Philadelphia had the benefit of the doubt. There is, in truth, good reason for believing that if in every such instance the weight of the evidence had been permitted to govern the decision the amount of product which should be set aside would be larger than it now is. Many of these cases included establishments and individuals that have disappeared since the census year and concerning which no perfectly trustworthy information could be obtained. In these cases I have usually accepted the original return as correct unless the indications clearly pointed to their untrustworthiness.

Fairness requires it to be said that not all of the original special agents were engaged in the criminal work to which I have alluded. Some of these men appear to have performed their tasks fairly well, while others seem to have made improper returns either because they did not fully comprehend the limitations imposed upon them by the law and the regulations of the bureau or because they were inspired by somebody with the idea that the gross product of Philadelphia must at all hazards be made very large. The purpose to swell the returns by foul means as well as by fair appears, however, to have animated a majority of the original special agents. The men employed by me have reported many cases in which owners of establishments said that the original special agents declared to them, "We are going to make a big return for Philadelphia". The kind of civic pride which impels men to resort to

forgery and perjury for the exaltation of their city can hardly be regarded as a desirable possession.

This work, undertaken by me very reluctantly at the solicitation of the government and of the officers of the Manufacturers' Club of Philadelphia, has, I venture to say, been thoroughly done. The men engaged in the service were trustworthy, and the greatest pains were taken by them and by me to secure accuracy. The schedules as revised assuredly represent the manufacturing industries of Philadelphia with as near an approach to correctness as can be obtained by diligent effort made with a desire to reach the facts without regard for any other consideration. Nobody can regret more than I do that there is a necessity for so great reduction of the original figures, but no honest man can desire that any part of the returns of the United States census shall be filled with figures representing simply the criminal propensities of the agents who supply them.

FINANCIAL REPORT.

The total disbursements on account of the Eleventh Census of the United States from the commencement of operations up to and including June 30, 1892, amounted to \$8,203,693.32, paid from appropriations as follows:

"Expenses Eleventh Census".....	\$6,719,152.56
"Farms, Homes, and Mortgages".....	985,768.39
"Printing, Engraving, and Binding".....	498,772.37
Total.....	8,203,693.32

The foregoing amount is chargeable to branches of investigation as follows:

Census proper.....	\$663,562.49
Printing and stationery.....	631,086.13
Supervisors.....	270,517.99
Enumerators.....	2,485,458.43
Population and social statistics.....	1,267,868.20
Manufactures.....	648,379.22
Agriculture.....	222,766.02
Vital statistics and special classes.....	254,508.79
Wealth, debt, and taxation.....	171,688.93
Farms, homes, and mortgages.....	1,005,771.65
Mines and mining.....	195,993.17
Fish and fisheries.....	129,211.26
Transportation.....	127,451.76
Insurance.....	47,372.75
Churches.....	35,723.60
Pauperism and crime.....	45,732.93
Total.....	8,203,693.32

The following table gives the total number of clerks carried on the pay roll for each month since the date of my last report, and is a continuation of the table on page 7 of that report :

MONTHS.	Total number on pay rolls.	Total amount of pay rolls.
July, 1891.....	2,380	\$147,106.80
August, 1891.....	1,310	105,901.85
September, 1891.....	1,095	75,607.35
October, 1891.....	1,053	69,795.80
November, 1891.....	963	61,623.85
December, 1891.....	962	57,434.05
January, 1892.....	971	54,994.10
February, 1892.....	987	55,715.05
March, 1892.....	1,008	62,796.75
April, 1892.....	1,016	61,550.20
May, 1892.....	1,133	67,978.05
June, 1892.....	1,214	70,969.40
Total.....		891,474.15
Total to June 30, 1891.....		2,803,221.00
Grand total to June 30, 1892.....		3,194,695.15

After making due allowance for the increase of population, of manufactures, of agriculture, of mining, the extension of our railroads, and after omitting from the calculation the cost of the investigation of individual indebtedness, the per capita cost of the Eleventh Census when completed will not greatly exceed the per capita cost of the Tenth Census. In making such comparisons it must also be borne in mind that the compensation established by the act of March 1, 1889, was slightly in advance of that paid in the Tenth Census. Compared with other bureaus, however, the average pay of clerks in the Census Office has not been excessive, ranging from \$300 to \$400 per annum lower than the salaries in most other departments. I see no reason to change my estimates for the current expenses of the Eleventh Census. Of the sum required, Congress has appropriated sufficient to defray the necessary expenses up to March 1, 1893. The sum of \$240,000 will be required to continue the office until June 30, 1893. Nearly all the reports should be in the hands of the Public Printer by that time, reducing the expenses materially for the next fiscal year. The force has reached its maximum number, and a steady decline will take place from now until the work is completed. It is not likely that the number employed December 31, 1892, will exceed in all divisions 1,000.

REORGANIZATION OF THE OFFICE.

In my former reports I have endeavored to give a brief statement of the condition of the work in each division. It is no longer neces-

sary to follow this rule, as many of the divisions have been abolished. Early in the spring I made a complete reorganization of the Census Office, reducing the number of divisions from 25 to 9. The original organization of the office consisted of the following divisions:

Superintendent, chief clerk, assistant chief clerk.

First division—Appointments.

Second division—Disbursements and accounts.

Third division—Geography.

Fourth division—Population.

Fifth division—Vital statistics.

Sixth division—Church statistics.

Seventh division—Educational statistics.

Eighth division—Pauperism and crime.

Ninth division—Wealth, debt, and taxation.

Tenth division—National and state finances.

Eleventh division—Farms, homes, and mortgages.

Twelfth division—Agriculture.

Thirteenth division—Manufactures.

Fourteenth division—Mines and mining.

Fifteenth division—Fish and fisheries.

Sixteenth division—Transportation.

Seventeenth division—Insurance.

Eighteenth division—Printing and stationery.

Nineteenth division—Statistics of special classes.

Twentieth division—Supervisors' correspondence.

Twenty-first division—Alaska.

Twenty-second division—Statistics of Indians.

Twenty-third division—Social statistics of cities.

Twenty-fourth division—Accounts, farms, homes, and mortgages.

Twenty-fifth division—Revision and results.

Under the new organization the divisions are as follows:

Superintendent's office—Chief clerk, assistant chief clerk, disbursing officer, and geographer.

First division—Population.

Second division—Manufactures.

Third division—Agriculture.

Fourth division—Farms, homes, and mortgages.

Fifth division—Vital statistics.

Sixth division—Social statistics.

Seventh division—Wealth, debt, and taxation.

Eighth division—Printing and stationery.

Ninth division—Revision and results.

CONDITION OF THE REPORTS.

It will be my endeavor to have the whole, or at least a good part, of the manuscript of all final reports except four in the hands of the

Public Printer by the close of the present calendar year. This will leave simply the following divisions to deal with:

- I. Population.
- II. Manufactures.
- III. Agriculture.
- IV. Farms, homes, and mortgages.

All the work of these divisions is well advanced. The first part of the compendium, a volume of 1,100 pages relating wholly to population, is nearly all in type. With the completion of the statistics of manufactures for 100 principal cities and the special reports now published, about 65 per cent of the office work and nearly all the field work of this division will be completed. All the essential data from the agricultural schedules will be tabulated by December 31. The most costly and difficult part of the farms, homes, and mortgages investigation, the field work, will be finished this year, and finished at less than the estimated cost. All the work in this division has been final, and 150 clerks, working for two years, will bring it to a successful termination. It would be a mistake to increase this force. Nearly all the clerks have had two years' experience, and many are experts. They are all faithful, industrious, and capable. Each state as it comes from this division is complete and final. With the last state the final volumes can go to press.

The following list gives some idea of the present condition of the final reports. Every day, however, brings about some change. Manuscript is released and reports go to press. Not infrequently a page of letter-press or an illustration or diagram or map delays a quarto volume. Six months will therefore bring about considerable change in this list.

FINAL REPORTS PUBLISHED.

Report on Mineral Industries in the United States: iron ore; gold and silver; copper, lead, and zinc; quicksilver; manganese, petroleum and natural gas; aluminum; coal; stone; precious stones; mica; mineral waters; minor minerals. Quarto, 874 pages and 60 illustrations, colored maps, diagrams, etc.

Farms, Homes, and Mortgages: reports on recorded indebtedness have been issued for the states of Alabama, Iowa, Illinois, Kansas, Missouri, Nebraska, and Tennessee; a report on the recorded indebtedness of Massachusetts will be issued within the next 60 days.

For farm and home results reports have been issued for the states of Kansas, Ohio, and Maine; reports containing farm and home results

for the states of Iowa, Massachusetts, New Jersey, and the District of Columbia will be published within the next 60 days.

Statistics of Indians: Report on The Six Nations of New York. 100 pages, numerous illustrations.

Report on Irrigation, with maps and illustrations.

PRELIMINARY RESULTS PUBLISHED.

Population of the United States by minor civil divisions as returned at the Eleventh Census. About 650 pages.

Preliminary results as contained in Eleventh Census Bulletins. 8 volumes, averaging about 450 pages.

Preliminary results as contained in Extra Census Bulletins. 650 pages, with maps and illustrations.

PARTIALLY IN TYPE IN THE GOVERNMENT PRINTING OFFICE.

Report and Statistics of the Condition of Indians living within the jurisdiction of the United States, 1890, taxed and not taxed. 900 pages, profusely illustrated.

Report relating to Transportation in the United States: Part I, railroads, street railways, and express companies. 900 pages, 187 pages in type. Part II, transportation on water: Atlantic and Pacific coasts, Mississippi Valley, Great Lakes, and canals. About 900 pages, 250 pages in type.

Population and Resources of Alaska. Colored illustrations, maps, etc.; 400 pages.

Compendium of the Eleventh Census: Part I. 1,100 pages, with colored charts and diagrams.

Compendium of the Eleventh Census: Part II. About 200 pages in type, balance in course of printing, and all practically ready.

Valuation, Taxation, Public Expenditures, and Indebtedness: Part I, public debt. 900 pages in type, completed and ready for publication. Part II, taxation and public expenditures. Will be ready for the printer in about 90 days.

Insurance: Part I, fire, ocean marine, inland navigation and transportation, and tornado insurance business. About 300 pages in the hands of the Public Printer and 150 pages nearly ready. Part II, life insurance, Class A, showing the business of level premium companies (ready in 30 days, 50 pages); Class B, assessment and co-operative companies; Class C, fraternal and other beneficiary associations. Part III, miscellaneous insurance, including the business of accident, burglary

and theft guarantee, hail, live stock, plate glass, real estate title guarantee, steam boiler, surety, and wind storm insurance companies.

READY FOR THE PRINTER.

Report on Vital and Social Statistics of the United States. About 700 pages ready for the printer.

Report on Pauperism and Crime in the United States: Part I, crime. In the hands of the Public Printer. Part II, paupers and benevolent institutions. Ready for the printer in 60 days.

Educational Statistics: Report on Statistics of Education in the United States. Copy for the first part of volume ready for the printer, second part waiting for tally of illiteracy.

Report on Statistics of Churches in the United States. Copy for the entire volume will be ready for the printer in 30 days. Ten bulletins already published.

NEARING COMPLETION.

Report on Statistics of Agriculture is advanced to completion in all farm products, including cotton, cereals, wool, fibers and sugar, tobacco, and live stock; also horticulture, truck farming, floriculture, seed farming, nurseries, tropic and semitropic fruits, and viticulture.

In manufactures reports for 100 principal cities are in course of printing; also reports of statistics of lumber, cotton, wool, and silk manufactures are published, and reports of statistics of iron and steel, chemicals, coke and glass, and electrical industries are ready for the printer.

Fish and Fisheries: fisheries of the Great Lakes; marine mammalia; fisheries of the Pacific states; cod and ground, menhaden, sea herring, mackerel, lobster, oyster, boat fisheries of the Atlantic ocean and Gulf of Mexico, shad and alewife, sponge, alligator, the inland fisheries, and carp.

The following list comprises the final volumes of the census:

- I. POPULATION.—Characteristics, conditions, distribution, and parentage. Occupations.
- II. VITAL AND SOCIAL STATISTICS.—Mortality and vital statistics. Social statistics. Statistics of special classes. Pauperism and crime.
- III. EDUCATION AND CHURCH STATISTICS.—Education and illiteracy. Religious bodies in the United States.
- IV. VALUATION, TAXATION, PUBLIC EXPENDITURES, AND INDEBTEDNESS.—Valuation and taxation. Receipts and expenditures. Indebtedness.
- V. FARMS, HOMES, AND MORTGAGES.—Recorded private indebtedness. Ownership of farms and homes and indebtedness thereon.

- VI. AGRICULTURE.—Irrigation. Tobacco. Farms, cereals, grass lands, and forage crops. The fibers, forestry, and sugar. Live stock on farms and dairy products. Wool and miscellaneous. Horticulture, including truck farming, floriculture, seed farming, nurseries, and tropic and semitropic fruits. Viticulture. Live stock on ranges. Live stock not on farms.
- VII. MANUFACTURES.—General statistics of manufactures. Statistics of specified industries. Manufactures in cities. Lumber and saw mills, timber products. Slaughtering and meat packing. Chemical manufactures and salt. Clay and pottery products. Coke and glass. Cotton manufactures. Dyeing and finishing of textiles. Electrical industries. Manufactured gas. Iron and steel. Printing, publishing, and periodical press. Wool manufactures, including woolen goods, worsteds, felt goods, carpets other than rag, wool hats, hosiery, and knit goods. Shipbuilding. Silk and silk goods. Agricultural implements. Paper mills. Boots and shoes. Leather, tanned and curried. Brick yards. Flour and grist mills. Cheese, butter, and condensed milk factories. Carriages and wagons. Leather, patent and enameled.
- VIII. MINES AND MINING.—Mineral industries in the United States: Iron ore. Gold and silver. Copper, lead and zinc. Quicksilver. Manganese, petroleum and natural gas. Aluminum. Coal. Stone. Precious stones. Mica. Mineral waters. Minor minerals.
- IX. FISH AND FISHERIES.—Statistics of fisheries by geographical divisions. Statistics of fisheries by name. Scientific and popular names of fishes, with their geographical distribution. Illustrations of the principal food fishes of the United States. Condensed description of fish by species. Statistical summary for each species for the United States.
- X. TRANSPORTATION.—Railroads. Statistics for the year ended June 30, 1890. Statistics for ten years ended in 1889. Lake, ocean, and river transportation. Canals. Transportation on the Pacific coast. Express business. Street railways.
- XI. INSURANCE.—Fire, ocean marine, inland navigation and transportation, and tornado insurance business. Life insurance, showing the business of level premium, assessment, and co-operative companies. Miscellaneous insurance, including the business of accident, burglary and theft guarantee, hail, live stock, plate glass and real estate title guarantee, steam boiler, surety, and wind storm insurance companies. Fraternal and other beneficiary associations.
- XII. INDIANS.—Report and statistics of the condition of Indians living within the jurisdiction of the United States, 1890, taxed and not taxed.
- XIII. ALASKA.—Population and resources of Alaska.
- XIV. VETERANS OF THE CIVIL WAR.—Seven volumes of 1,000 pages each; publication not yet authorized.
- XV. STATISTICAL ATLAS.—Publication not yet authorized.

From the list showing the number of volumes completed and in course of completion it is safe to state that before the close of the calendar year 1892 the reports contained in Volumes III, IV, VIII, IX, X, XI, XII, and XIII of the Eleventh Census will be in the hands of the Public Printer; that the population volume will be well advanced

toward completion, and that the work of vital and social statistics and the principal part of the work relating to agriculture and manufactures, except the calculations based upon certain returns from the population division, will be ready for the printer.

Rapid as the progress has been, notwithstanding the fact that we now have eight quarto volumes in the hands of the printer, that one of the volumes of the compendium is nearly all in type and part of the second volume fairly started, the infinite detail of the office makes it impossible to foretell with accuracy the date of the actual termination of the work of the Eleventh Census. The present force and consequent expenses may be considerably reduced before the close of the next fiscal year. At the same time it would be a great mistake to abandon any of the work or to fail to tabulate and publish the valuable data collected. It has been from the start the aim to make this census purely a statistical one, and the results show that I have adhered closely to the original plan as mapped out and approved by you. It is impossible to point to a page of matter that has been issued from the Census Office that is not entirely relevant and that has not been called for by the act under which the census was taken. If a direct adherence to the law and the magnitude of our vast domain makes the work of securing these data costly, the Census Office can not be considered responsible for it.

Nothing will more effectually show the amount of work accomplished by the Census Office than the following list of bulletins, covering, as you will see, every branch of investigation and numbering 223, with a total of nearly 5,000 pages published or at present in type:

AGRICULTURE.

- | | |
|-----|--|
| No. | |
| 193 | Artesian Wells Used for Irrigating Purposes. |
| | Cereal Production in— |
| 185 | California, Colorado, New Mexico, and Arizona. |
| 188 | Georgia, Alabama, Florida, and Delaware. |
| 181 | Illinois, Indiana, Oregon, and Washington. |
| 186 | Iowa, Kansas, and Arkansas. |
| 189 | Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. |
| 210 | Michigan, Ohio, and Kentucky. |
| 184 | Nebraska, Wyoming, Montana, Idaho, Utah, and Nevada. |
| 59 | Commercial Floriculture. |
| | Cotton Production in— |
| 190 | North Carolina, South Carolina, Georgia, and Florida. |
| 191 | Tennessee, Alabama, Mississippi, Louisiana, and Arkansas. |
| 177 | Flax and Hemp. |
| 143 | Hop Production. |

AGRICULTURE—continued.

- No.
 103 Horses, Mules, and Asses on Farms.
 161 Horticulture—Tropic and Semitropic Fruits and Nuts.
 Irrigation in—
 35 Arizona
 157 Idaho.
 153 Montana.
 163 Nevada.
 60 New Mexico.
 178 Oregon.
 85 Utah.
 198 Washington.
 107 Wyoming.
 117 Live Stock on Ranges.
 109 Nurseries.
 111 Seed Farms.
 41 Truck Farming.
 38 Viticulture.
 23 Extra—Irrigation.
 13 Extra—Tobacco Production.

ALASKA.

- 15 Letter of Ivan Petroff on Census of.
 150 Official Count of Population of.
 30 Population of.
 39 Wealth and Resources of.

CHURCHES.

- 70 Cumberland Presbyterian, Church of Jesus Christ of Latter-day Saints (Mormons), Reformed Episcopal, Unitas Fratrum or Moravian, German Evangelical Synod of North America, German Evangelical Protestant of North America, and Plymouth Brethren.
 180 Disciples of Christ, Christians or Christian Connection, Evangelical Association, Primitive Methodist, Union American Methodist Episcopal, Seventh-day Adventists, Church of God (Seventh-day Adventist), United Zion's Children, and Society for Ethical Culture.
 152 Lutheran bodies—General Synod, United Synod in the South, General Council, Synodical Conference, and 13 Independent Lutheran bodies.
 131 Mennonite, Bruederhoef Mennonite, Amish Mennonite, Old Amish Mennonite, Apostolic Mennonite, Reformed Mennonite, General Conference Mennonites, Church of God in Christ, Old (Wisler) Mennonites, Bundes Conference der Mennoniten Brueder-Gemeinde, Defenceless Mennonites, Mennonite Brethren in Christ, Brethren or Dunkards (Conservative), Brethren or Dunkards (Progressive), African Methodist Episcopal, Wesleyan Methodist Connection, African Union Methodist Protestant, Independent Churches of Christ in Christian Union, Temple Society, Church of God, Reorganized Church of Jesus Christ of Latter-day Saints, Society of Shakers, Amana Society, Bruederhoef Mennonite Society, Harmony Society, Society of Separatists, New Icaria Society, and Society of Altruists.

CHURCHES—continued.

- No.
 195 Methodist Episcopal.
 174 Presbyterian—Presbyterian in the United States of America, Presbyterian in the United States, Welsh Calvinistic Methodist, and Cumberland (colored).
 159 Reformed Church in America, Reformed Church in the United States, Christian Reformed Church, Orthodox Jewish Congregations, Reformed Jewish Congregations, Friends (Orthodox), Friends (Hicksite), Friends (Wilburite), Friends (Primitive), Reformed Presbyterian (Synod), Reformed Presbyterian (General Synod), Reformed Presbyterian Covenanted, Reformed Presbyterian in United States, Associate Church of North America, Associate Reformed Synod of the South, and Spiritualists.
 101 Roman Catholic, Greek Catholic (Uniates), Russian Orthodox, Greek Orthodox, Armenian, Old Catholic, and Reformed Catholic.
 18 United Presbyterian of North America, Church of the New Jerusalem (Swedenborgian), Catholic Apostolic, Salvation Army, Advent Christian, Evangelical Adventists, Life and Advent Union (Adventists), Seventh-day Baptists, Seventh-day Baptists (German), General Six Principle Baptists, Christian Church South, Schwenkfeldians, Theosophical Society, and Brethren in Christ (River Brethren).

EDUCATION.

Statistics for—

- 84 Alabama, Colorado, Florida, Georgia, Idaho, Indiana, Kansas, Kentucky, Missouri, Nebraska, Nevada, New Jersey, Tennessee, and 105 Cities.
 53 Alaska, Arkansas, Delaware, Illinois, Iowa, Michigan, Minnesota, Mississippi, New Mexico, New York, North Dakota, Oregon, Texas, Utah, Washington, West Virginia, and 42 Cities.
 36 Arizona, California, Connecticut, District of Columbia, Maine, Maryland, Massachusetts, Montana, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Vermont, Virginia, Wyoming, and 83 Cities.
 17 Louisiana, New Hampshire, Wisconsin, and Cities of 10,000 Inhabitants and Over; also Mormon Schools in Arizona, Idaho, and Utah.
 11 Extra—Summary of Statistics.

FARMS, HOMES, AND MORTGAGES.

- 5 Letter to the Secretary of the Interior on.
 16 Extra—Additional Results for Alabama, Illinois, Iowa, Kansas, and Tennessee.

Extra—Mortgages in—

- 22 Missouri.
 20 Nebraska.

Extra—Ownership and Debt in—

- 18 Kansas and Ohio.
 21 Maine.

Extra—Statistics of—

- 3 Alabama and Iowa.
 12 Illinois.
 14 Kansas.
 15 Tennessee.

FISHERIES.

- No.
 2 List of Products of.
 123 Marine Mammalia.
 173 Of the Great Lakes.
 167 Of the Pacific states.

GEOGRAPHICAL.

- 23 Areas of States and Counties.
 34 Center of Population.
 4 Names and Addresses of Supervisors.
 47 Population by Drainage Basins.
 Population in Accordance with—
 89 Altitude.
 63 Latitude and Longitude.
 32 Mean Annual Rainfall.
 44 Mean Relative Humidity.
 65 Topographical Features.
 33 Population with Reference to Mean Annual Temperature.
 1 Supervisors' Districts.

INDIANS.

- 25 In the United States (except Alaska), Taxed or Taxable and Not Taxed.
 Extra—Six Nations of New York.

INSURANCE.

- 6 Extra—Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Dakota (North and South), Delaware, District of Columbia, and Florida.
 7 Extra—Georgia, Idaho, Illinois, Indiana, Indian Territory, Iowa, Kansas, Kentucky, Louisiana, and Maine.
 8 Extra—Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, and New Hampshire.
 9 Extra—New Jersey, New Mexico, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, and Tennessee.
 17 Extra—Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming, and Recapitulation.

MANUFACTURES.

- 3 Cities and Towns in which Statistics will be Collected by Special Agents.
 22 Distilled Spirits Used in the Arts, Manufactures, and Medicine.
 Iron and Steel—
 168 Production of Cast-iron Pipe Foundries.
 156 Production of the New England States.
 196 Operating Telephone Companies.
 Production of—
 9 Pig Iron.
 13 Steel.
 Statistics of Manufactures in the—
 170 City of St. Louis, Missouri.
 158 District of Columbia.
 169 Wool Industry.
 5 Extra—Lumber Mills and Saw Mills and Timber Products.

MINES AND MINING.

- No.
 20 Anthracite Coal Fields of Pennsylvania.
 166 Mineral Resources of the United States.
 75 Minor Mineral Industries.
 49 Precious Stones and Diamond Cutting.
 Production of—
 79 Aluminum.
 67 Bituminous Coal in Pennsylvania.
 71 Bluestone.
 27 Coal in Alabama.
 74 Coal in Illinois, Ohio, Indiana, and Michigan.
 26 Coal in Maryland.
 94 Coal in West Virginia, Kentucky, Tennessee, Virginia, Georgia, and North Carolina.
 43 Coal West of the Mississippi.
 96 Copper.
 45 Granite in the United States.
 113 Iron Ore.
 80 Lead and Zinc.
 78 Limestone.
 68 Manganese Ores.
 61 Mica.
 76 Petroleum.
 73 Sandstone.
 8 Slate.
 10 Quicksilver Mines and Reduction Works.
 10 Extra—Coal Product of the United States.
 4 Extra—Production of Mineral Waters in the United States.

PAUPERISM AND CRIME.

- 31 Convicts in Penitentiaries.
 182 Homicide.
 72 Inmates of Juvenile Reformatories.
 90 Paupers in Almshouses.
 154 Paupers in Almshouses, Classified by Age and Sex.
 95 Prisoners in County Jails.
 106 Sentences of Convicts in Penitentiaries.

POPULATION.

By Color, Sex, and General Nativity—

- 194 By States and Territories.
 187 Delaware, Maryland, District of Columbia, Virginia, and West Virginia.
 175 Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.
 183 New York, New Jersey, and Pennsylvania.
 197 North Carolina, South Carolina, Georgia, and Florida.

POPULATION—continued.

No.

By Counties—

- 37 North and South Atlantic Divisions.
- 40 North Central Division.
- 42 South Central and Western Divisions.

By Minor Civil Divisions—

- 138 Alabama.
- 93 Arizona.
- 112 Arkansas.
- 134 California.
- 127 Colorado.
- 58 Connecticut.
- 57 Delaware.
- 132 District of Columbia.
- 144 Florida.
- 124 Georgia.
- 86 Idaho.
- 145 Illinois.
- 108 Indiana.
- 99 Iowa.
- 114 Kansas.
- 139 Kentucky.
- 133 Louisiana.
- 56 Maine.
- 132 Maryland.
- 24 Massachusetts.
- 97 Michigan.
- 147 Minnesota.
- 125 Mississippi.
- 119 Missouri.
- 130 Montana.
- 126 Nebraska.
- 87 Nevada.
- 21 New Hampshire.
- 69 New Jersey.
- 129 New Mexico.
- 116 New York.
- 122 North Carolina.
- 137 North Dakota.
- 121 Ohio.
- 128 Oklahoma.
- 146 Oregon.
- 105 Pennsylvania.
- 50 Rhode Island.
- 77 South Carolina.
- 135 South Dakota.
- 136 Tennessee.
- 148 Texas.
- 118 Utah.
- 51 Vermont.
- 83 Virginia.

POPULATION—continued.

No.

By Minor Civil Divisions—continued.

- 110 Washington.
- 102 West Virginia.
- 91 Wisconsin.
- 92 Wyoming.
- 48 By Race in the South and in California.
- 12 First Count—62,480,540.
- 52 Of Cities having 8,000 Inhabitants or Over.
- 16 Official Count—62,622,250.
- 165 Of places of 1,000 Inhabitants and Upward.
- 2 Extra—Distribution of Population according to Density.
- 19 Extra—Dwellings and Families.
- 1 Extra—Increase and Decrease of Population, 1880-1890.

TRANSPORTATION.

- 142 By Water on the Pacific Coast, Considered as an Industry.
- 29 Changes in Floating Equipment on the Great Lakes since 1886.
- 66 Floating Equipment on the Great Lakes.
- 28 Freight Traffic on the Great Lakes.
- 88 On the Ohio River and its Tributaries above Cincinnati.
- Railways—
- 46 Group I: New England States.
- 115 Group II: New York, New Jersey, Pennsylvania, Delaware, Maryland, and Part of West Virginia.
- 120 Group III: Ohio, Indiana, Southern Peninsula of Michigan, and Parts of Pennsylvania and New York.
- 149 Group IV: Virginia, West Virginia, North Carolina, and South Carolina.
- 151 Group V: Kentucky, Tennessee, Mississippi, Alabama, Georgia, and Florida.
- 155 Group VI: Illinois, Northern Peninsula of Michigan, Minnesota, Wisconsin, Iowa, North Dakota, South Dakota, and Missouri.
- 160 Group VII: Nebraska, Montana, Wyoming, and Parts of North Dakota, South Dakota, and Colorado.
- 164 Group VIII: Missouri South of Missouri River, Arkansas, Kansas, Indian Territory, Colorado South of Denver, and New Mexico North of Santa Fe.
- 171 Group IX: Louisiana, Texas, and Part of New Mexico.
- 172 Group X: California, Oregon, Washington, Idaho, Nevada, the Territories of Arizona and Utah, and Part of the Territory of New Mexico.
- 11 Rapid Transit in Cities of Over 50,000 Inhabitants.
- 55 Relative Economy of Cable, Electric, and Animal Motive Power for Street Railways.
- 179 Transportation by Water in the United States.

VITAL STATISTICS.

- 81 Asylums for the Blind.
- 62 Asylums for the Insane.
- 140 Schools for the Deaf.
- 100 Social Statistics of Cities.
- 19 Vital Statistics of the Jews.

WEALTH, DEBT, AND TAXATION.

- No.
 192 Assessed Valuation of Property.
 104 Assessed Valuation of Property, Preliminary Statistics of.
 162 Finances of Maine.
 6 Financial Condition of Counties.
 14 Financial Condition of Municipalities (withdrawn from circulation).
 64 Foreign, National, State, and County Indebtedness.
 Public School Finances in—
 141 Alabama, Colorado, Florida, Massachusetts, Montana, Nebraska, Ohio,
 Oregon, Tennessee, and Utah.
 54 Arkansas, California, Connecticut, Idaho, Kansas, Louisiana, New Hampshire,
 North Carolina, Vermont, and Washington.
 98 Georgia, Illinois, Maryland, Michigan, Minnesota, Mississippi, Nevada, North
 Dakota, Rhode Island, South Carolina, and Wisconsin.
 82 Receipts and Expenditures of 100 Cities
 7 State Indebtedness, 1890 and 1880.
 176 Summary of National, State, and Local Indebtedness.

Editions varying from 2,500 to 5,000 copies of these bulletins have been issued to furnish important federal, state, and municipal officers, newspapers, colleges, etc. It has been the aim of the office to make each bulletin complete in itself, and the popularity of these documents has been something phenomenal and the demand enormous. They have in a large measure taken the place of the compendium. By thus dividing the several investigations the Census Office has been able to supply exactly the information needed to experts and specialists, public men, and writers, at a comparatively small cost. Under the old system it was necessary to either wait several years for a cumbersome quarto volume or for the compendium in order to ascertain some particular result of a special investigation. The bulletin supplies the specific want free of the incumbrance of the material not required, and while comparatively few persons are interested in the census in its entirety, hundreds of thousands are interested in some one inquiry. The bulletin has enabled a vast army of writers in this country and in Europe to analyze the results of this census. It has solved the question of effective distribution of information, and at the same time annihilated several years of time between the gathering of material and the publication of the ponderous volumes.

Very respectfully,

ROBERT P. PORTER,

Superintendent of Census.

The SECRETARY OF THE INTERIOR.

From annual report of the Secretary of the Interior on the work of the Census.

1893

Resignation of Mr. Porter. Mr. Carroll D. Wright appointed to serve as Superintendent of the Census while Commissioner of Labor.

Radical change necessary to improve work of the Census.

Time for completion of the Census extended to July 1, 1894.

1894

All copy for the Eleventh Census will be in the hands of the printer by March 4, 1895.

Discussion of advisability of preserving population schedules.

Storage problem a serious one.

REPORT

108

OF THE

COMMISSIONER OF LABOR

IN CHARGE OF

THE ELEVENTH CENSUS

TO THE

SECRETARY OF THE INTERIOR

FOR THE

FISCAL YEAR ENDING JUNE 30, 1895.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1895.

REPORT

FOR THE FISCAL YEAR ENDING JUNE 30, 1895.

DEPARTMENT OF THE INTERIOR,
CENSUS DIVISION,
Washington, D. C., July 29, 1895.

SIR: I have the honor to submit herewith a report of the operations of the Census Office for the fiscal year ending June 30, 1895, and of the condition of the reports of the Eleventh Census at that date.

The total cost of the Eleventh Census up to the date named has been as follows:

Expenses Eleventh Census	\$8,598,419.93
Farms, Homes, and Mortgages	1,328,567.89
Printing, engraving, and binding	604,153.69
Total	10,531,141.51

By an act making appropriations to supply deficiencies in the appropriations for the fiscal year ending June 30, 1895, and for other purposes, approved March 2, 1895, the office of the Eleventh Census, as a bureau, was abolished, and it was provided that the unfinished work of the Eleventh Census should be completed in the office of the Secretary of the Interior. In accordance with this act, a census division took the place of the Census Office. Mr. George S. Donnell, chief clerk of the Census Office, was made chief of the division, and is still occupying that position. The act abolishing the Census Office authorized the Secretary of the Interior to continue my services in accordance with the provisions of an act approved October 3, 1893.

It was not contemplated by the act abolishing the Census Office and providing for a division that any change in the status of the employees of the Census Office relative to the civil service would take place. But as the Census Office was abolished, and provision made for the establishment of a census division in the Secretary's Office, the Civil Service Commission very properly decided that the new division must be subject to all the rules and regulations governing other divisions of the Secretary's Office. As the act abolishing the Census Office took effect on the 4th day of March, 1895, and the Census Division was brought into service on that day, it was decided by the Civil Service Commission that the employees in the Census Division should be considered as within the classified service and subject to transfer, the same as

employees in offices over which the civil-service law has been extended by executive order. By this decision of the Civil Service Commission, some of the most experienced clerks in the census service have been transferred to permanent positions, and their skill and experience can be brought into requisition in the future. Others will be so transferred when their services are no longer needed in this division.

At the close of the fiscal year ending June 30, 1894, the total force receiving compensation was 672. At the present writing the total force on the pay-roll of the Census Division is 70. Some of this number have made arrangements for transfer to other offices; in this way the force will be reduced by the 1st or 15th of August to about 50, and thereafter constantly reduced as the work of the division draws to a close.

During June just passed the housing of the Census Division was changed from the Inter-Ocean Building, on Ninth street, to Marini's Hall, on E street. All the storage, for which accommodations were found in various places, has been brought to the same building, so that the vast amount of material collected at the Eleventh Census and the small clerical force are now housed under one roof. The change reduced the total annual expense for rent, fuel, etc., for the Census Division, from nearly \$12,000 to \$2,220, a saving by the change of \$9,684 per annum, or \$807 per month.

I am happy to inform you that the appropriations now available are, in my opinion, sufficient for all purposes of the Census Division, except, it may be, for printing and binding final results. I regret to say, however, that the anticipations expressed in my annual report for the year ending June 30, 1894, as to the early completion of the various reports, have not been fully realized, but the causes for this are legitimate and reasonable. The delay, which was but a few months, resulted, in the first place, from the interruption of the work of the office on account of the smallpox last autumn, and again through the removal of the office in June. These delays put off the completion of the work probably six weeks, but the chief cause of delay relates to Part II of the Report on Population, which comprises the statistics relating to age, school attendance, illiteracy, ability to speak English, occupations, citizenship, and soldiers and widows of soldiers, and, in addition to these matters, a Monograph on Education, compiled from the reports of schools in the United States as returned at the Eleventh Census. The most difficult feature of the census of population is that of the occupation statistics. The possibilities of error, moreover, in the prosecution of a work of such magnitude as the detailed tabulation of the occupations of upward of 22,000,000 people, subdivided according to sex, general nativity, color, age, conjugal condition, months unemployed, place of birth, birthplace of mother, and ability to read and write, and to speak the English language, can best be comprehended by the statement that there are at least a third of a million chances of error in the work of

transcription from original schedules and the tabulation of occupation returns. The tabulation concerning occupations, therefore, has been subjected to a most careful revision, and every doubtful point investigated, going back in all cases to the original return on the population schedule. This work of revision has, of course, been the chief cause of delay in the completion of the volume, but has been absolutely essential to accurate results and the integrity of the census. All copy for Part II has been made and verified, with the exception of a small part of that relating to occupations. The intermediate sheets for occupations, which constitute practically the "office copy" from which the printer's copy is made, have all been prepared subject to such corrections as may be revealed by the work of revision now in hand. This correction work is now nearing completion, and when the changes arising therefrom have been made on the intermediate sheets, the work of preparing the copy for the printer will be comparatively simple and can be rapidly completed. As the matter stands to-day, probably more than eight-tenths of all the work necessary to produce the copy for Part II of the Report on Population has been completed.

The Report on Vital Statistics, still incomplete, can not, of course, be finished until the work on Population is ready; the Report on Vital Statistics consists of four parts, two of which are already plated, one completely in the hands of the Printing Office, and nine-tenths of the fourth part finished. The only remaining matter for the office is Part III of the Compendium, being the last of the three parts, the second edition of the Abstract, as authorized by Congress, and the Statistical Atlas. Neither of these three works can be entirely completed until the tabulation of occupations is wholly out of the way, but the copy for the remaining volume of the Compendium can be put in shape in two weeks' time. The Abstract is practically ready except the insertion of a chapter on occupations, and the Statistical Atlas is nineteen-twentieths completed. It is contrary to law for the Printing Office to make the contract for the Atlas until all the copy is in hand. Neither of these three matters, however, need delay the office more than a month after the completion of Part II of the Report on Population. The only remaining service then to be performed by the Census Division will be proof reading.

As stated in my annual report for June 30, 1894, the number of pages comprehended in the 25 volumes of reports, is, in round numbers, 22,000. At that time 6,298 of this total number had been plated. The work of the Census Office during the past year is well shown by the statement that there are now 16,522 pages of the final reports in plate. The total number of plated pages in regular and extra bulletins, Compendium, and final reports on the 30th of June, 1894, was 17,547. The total number of pages now in plate, including the various features of the census, is 26,930. These facts alone demonstrate the industry of the Census Office during the past fiscal year.

REPORT OF THE COMMISSIONER OF LABOR IN CHARGE.

STATUS OF CENSUS REPORTS JUNE 30, 1895.

Briefly stated, the condition of the final reports is as follows: There are to be in all 25 volumes of final reports, comprehending, in round numbers, 22,000 pages. Of these final reports, 17 are out of the hands of the census force. They are as follows:

- Population, Part I.
- Vital Statistics, Part III.
- Vital Statistics, Part IV.
- Crime, Pauperism, and Benevolence, Part II.
- Churches.
- Manufactures, Part II.
- Manufactures, Part III.
- Wealth, Debt, and Taxation, Part I.
- Wealth, Debt, and Taxation, Part II.
- Insurance, Part I.
- Insurance, Part II.
- Agriculture, Irrigation, and Fisheries.
- Transportation, Part I.
- Transportation, Part II.
- Mineral Industries.
- Indians.
- Alaska.

In addition to the above, Parts I and II of the Compendium and the first edition of the Abstract have been sent to the public.

Of the foregoing final reports, 9 have been issued and distributed, namely:

- Population, Part I.
- Vital Statistics, Part III.
- Churches.
- Wealth, Debt, and Taxation, Part I.
- Insurance, Part I.
- Transportation, Part II.
- Mineral Industries.
- Indians.
- Alaska.

The number of volumes completed, that is, completed in every sense, so far as this office is concerned, but not yet distributed, in addition to the foregoing, is 8, as follows:

- Vital Statistics, Part IV.
- Crime, Pauperism, and Benevolence, Part II.
- Manufactures, Part II.
- Manufactures, Part III.
- Wealth, Debt, and Taxation, Part II.
- Insurance, Part II.
- Agriculture, Irrigation, and Fisheries.
- Transportation, Part I.

These eight volumes will be distributed to the public at once. The Census Division is reading the final pages of the proof of four volumes, namely: Real Estate Mortgages; Manufactures, Part I; Insane, Feeble-

Minded, Deaf and Dumb, and Blind; Crime Pauperism, and Benevolence, Part I. Two volumes are at the Printing Office, namely: Vital Statistics, Part II, and the Report on Farms and Homes: Proprietorship and Indebtedness, for which proof is still to be read. The only copy to be forwarded to the Printing Office is the Report on Population, Part II, and Vital Statistics, Part I, as already stated, and the copy for Part III of the Compendium, Abstract, and Statistical Atlas.

PROVISIONS OF LAW AS TO PUBLICATIONS.

There is some misapprehension as to the scope of the Eleventh Census and the volume of final results. In the act of March 1, 1889, providing for taking the Eleventh and subsequent censuses, it is provided that, "the only volumes that shall be prepared and published in connection with said census shall relate to population and social statistics relating thereto, the products of manufactures, mining, and agriculture, mortality and vital statistics, valuation and public indebtedness, recorded indebtedness, and to statistics relating to railroad corporations, incorporated express, telegraph, and insurance companies, a list of the names, organizations, and length of service of surviving soldiers, sailors, and marines, and the widows of soldiers, sailors, and marines." The work of the Eleventh Census has been confined strictly to the topics just enumerated, as stated in the census law. It was probably the intention of Congress to restrict the number of volumes as well as to designate the topics which should be treated, but a subsequent act entitled "An act to provide for the publication of the Eleventh Census," approved February 23, 1893, provided as follows:

That the reports of the Eleventh Census of the United States be printed and bound at the Government Printing Office, to consist of the following: A digest of the leading statistics, not to exceed 200 octavo pages; a compendium; a report on population; a report on manufactures; a report on agriculture; a report on wealth, debt, and taxation; a report on farms, homes, and mortgages; a report on mineral resources; a report on transportation; a report on insurance; a report on vital statistics; a report on statistics of special classes; a report on fish and fisheries; a report on educational and church statistics; a report on social statistics; a report on Alaska; a report on Indians, and a statistical atlas, together with such special reports and monographs as may be found necessary.

By this act there were to be 15 reports, but by the second section of the act it was provided that any or all of the reports might, for convenience of publication, be divided into parts and each part published separately. This was left to the discretion of the Superintendent of Census, with the approval of the Secretary of the Interior. These 15 reports provided for in the act of February 23, 1893, were specific reports, and did not include the Compendium, Abstract, and Statistical Atlas. It is, therefore, the subdivision into parts that makes the final reports of the Eleventh Census number 25. The number of topics is strictly according to law. As planned under the law of March 1, 1889, and of February 23, 1893, the total number of volumes, including the

names of veterans, was 32, and had no change been made there would have been brought out 32 quarto volumes instead of the 25 volumes that now comprehend the entire results of the census that will be published. The decrease of 7 volumes in number was the result of a recommendation which I had the honor to make, and which you readily approved, that the provisions of the act to provide for taking the Eleventh Census, approved March 1, 1889, relating to the publication of names, organizations, and length of service of those who served in the Army, Navy, or Marine Corps of the United States in the war of the rebellion, and who were survivors at the time of the Eleventh Census, and of the widows of soldiers, sailors, or marines at that time, be repealed, and that the special schedules containing such names, organizations, and length of service be transferred to the Commissioner of Pensions for use in the Army and Navy survivors' division of the Pension Office. This recommendation was acted upon favorably by Congress, and the schedules turned over to the Commissioner of Pensions as provided by an act approved April 21, 1894. By this action I was able to reduce the number of volumes from 32 to 25, as stated, and to save to the Treasury about \$250,000, while the Government and the public secured all the material advantages of the enumeration of the veterans and widows contemplated by the act of March 1, 1889, for the results have been tabulated and will appear in Part II of the Report on Population, thus giving to Congress the number of veterans living at that time and widows of deceased soldiers, while the Pension Office is in possession of the data as to names, organizations, and length of service of veterans.

There is another matter concerning which there is some misapprehension; this relates to the completion of the final reports of the Eleventh Census. It is often stated that the public is being deprived of the results of the Eleventh Census by the length of time taken for the final compilation. When it is understood that this compilation contains the details as to minor divisions, and in every respect of the whole work of the census, and that the material facts have long since been given out, such misapprehension seems to have little weight. Yet it is readily admitted that the final results of the enumeration and the collection of various facts should be completed at a much earlier date. The bulletin feature of the census is most valuable, and under it there have been sent out nearly 7,000 quarto pages of printed matter, covering the most important and useful facts comprehended by the census law. Still, the desire for final results at an early date is reasonable, although the time in which they are expected is often unreasonable, and comparisons are made with the time of foreign countries after each enumeration. Such comparison, however, instead of being unfavorable to the Federal census is entirely favorable to it. Without discussing the value of the vast amount of material under the Federal censuses, in the Tenth 22 large quartos and in the Eleventh 25,

it is certain that the bulk alone can not be compared with foreign results. Most European countries take their decennial census a year later than our own, but their censuses consist of but few inquiries and relate to the population only, the results being comprehended in from one to three volumes. With this minimum of work, however, foreign census volumes are not published, as a rule, inside of three years from the time of the enumeration. The comparison, therefore, is creditable to the Federal census. Yet the whole system should be changed, for the long time taken to complete a Federal census is the result of the system under which it is taken and the results compiled. It is my opinion, which I state after most careful consideration and examination of conditions, that with a more scientifically arranged system, and the employment of a force drawn from the civil service lists, at least \$2,000,000 might have been saved in the Eleventh Census, and at least one year in the completion of final reports.

In my last annual report I called attention to the permanent binding of the schedules of the Eleventh Census in conformity with past custom. In discussing this matter with the proper committees of Congress, it was decided that it was better to put these schedules in order for binding and leave the matter of a permanent form for later consideration. In accordance with this idea, a small appropriation was made to enable this office to put the schedules in proper shape for permanent binding. This work is going on, and it is so systematized that it does not interfere with the completion of the clerical work.

You may confidently look for the rapid reduction of the force of this office after the 1st of October, and the entire cessation of clerical work during the present calendar year. I am assured by the Public Printer that he will do all in his power to bring out the final reports rapidly, and, if possible, during the present calendar year. The condition of the work of the Census Division and the condition of the final reports show clearly that the work of the Eleventh Census will be completed at least two years earlier than was the work of the Tenth Census. This result is very gratifying. Of course there must be a force of proof readers as long as material remains in the Printing Office, and it will probably be necessary to retain a Census Division even after the last volume is sent out, as the inquiries coming from the public are constant and need special answers. I am in hopes, however, to ask to be relieved of the charge of the census work early in the coming autumn.

Thanking you for your considerate assistance and co-operation at all times, I am,

Very respectfully, your obedient servant,

CARROLL D. WRIGHT,
Commissioner of Labor in Charge.

THE SECRETARY OF THE INTERIOR.

From annual report of the Secretary of the
Interior on the work of the Census.

1896

Work of the Eleventh Census completed except
final proofreading and revision of two volumes.

Commissioner of Labor to formulate and submit
plans for a permanent Census service.

Results of future censuses to be brought out
more promptly.

REPORT

120

OF THE

COMMISSIONER OF LABOR

IN CHARGE OF

THE ELEVENTH CENSUS

TO THE

SECRETARY OF THE INTERIOR

FOR THE

FISCAL YEAR ENDING JUNE 30, 1897,

TOGETHER WITH

REPORT OF THE CENSUS CLERK.

WASHINGTON:

GOVERNMENT PRINTING OFFICE.

1897.

REPORT
OF THE
COMMISSIONER OF LABOR IN CHARGE OF THE ELEVENTH CENSUS.

DEPARTMENT OF THE INTERIOR, CENSUS DIVISION,
Washington, D. C., October 5, 1897.

SIR: I have the honor to submit herewith my annual report as Commissioner of Labor in charge of the Eleventh Census, which report comprehends the operations of the Census Division for the fiscal year ending June 30, 1897, and of the condition of the office at the present time.

There is practically no force now employed in this division on clerical work. Mr. William A. King, the census clerk, has charge under the law of the preservation of the records of the Eleventh Census, and attends to such other matters as may be referred to the Census Division. There is a messenger and charwoman assigned to the care of the building and the assistance of Mr. King. Practically, therefore, the work of the Census Division, so far as the Eleventh Census itself is concerned, has been closed. All the reports were completed on the 31st of July last, when the last plate proof received from the Printing Office was sent back. So far as the public is concerned, the preliminary results, including the important features of the Eleventh Census, were published, subject to final revision, when Extra Census Bulletin No. 99 was issued May 18, 1895, and that date can with reason be considered as the date of sending the final general results of the Eleventh Census to the public. That fact is most gratifying, and when the magnitude of the Eleventh Census is considered, the date named was much earlier than could have been expected; and when compared with censuses of foreign countries in relation to the amount of material published, it signifies the very rapid completion of the reports. Since that date, May, 1895, the principal duties of the clerical force have been to put into final shape the quarto volumes not then published containing the revised results in detail. It should be remembered that the Superintendent of the Census began issuing bulletins of preliminary results in August, 1890, and that this method was kept up until May, 1895, the result being that as fast as results were obtained they were sent to the

4 REPORT OF COMMISSIONER OF LABOR IN CHARGE OF CENSUS.

public. In this way over 6,000 pages of matter were published. The large quarto volumes containing the elaborate details of the census are not the works generally used. They are for permanent historical use.

The final reports of the Eleventh Census consist of 25 volumes, with the following titles:

Agriculture, including Agriculture by Irrigation and Statistics of Fisheries.
Alaska, Population and Resources.

Churches.

Crime, Pauperism, and Benevolence, Parts I and II.

Farms and Homes: Proprietorship and Indebtedness.

Indians, taxed and not taxed, in the United States (except Alaska).

Insane, Feeble-minded, Deaf and Dumb, and Blind.

Insurance, Part I (fire).

Insurance, Part II (life).

Manufacturing Industries, Part I (totals for States and Territories and industries).

Manufacturing Industries, Part II (totals for cities).

Manufacturing Industries, Part III (selected industries).

Mineral industries.

Population, Part I (progress of the nation from 1790 to 1890, and tables of the general population).

Population, Part II (progress of the nation—continued, age distribution; school attendance; illiteracy; citizenship; occupations; country of birth; soldiers and widows; also monograph on education).

Real Estate Mortgages.

Transportation, Part I (by land, embracing reports on steam railroads, street railways, including horse railways, cable railways, electric railways, and steam railways engaged exclusively in city passenger traffic).

Transportation, Part II (by water, embracing reports on the Atlantic Coast and Gulf of Mexico, Pacific Coast (exclusive of Alaska), Great Lakes, Lake Champlain, rivers of the Mississippi Valley, canals and canalized rivers, and express companies).

Vital and Social Statistics, Part I (analysis and ratio tables).

Vital and Social Statistics, Part II (cities of 100,000 population and upward).

Vital and Social Statistics, Parts III and IV (statistics of deaths).

Wealth, Debt, and Taxation, Part I (public debt).

Wealth, Debt, and Taxation, Part II (valuation and taxation).

In addition to the final reports already named, the following miscellaneous volumes have been prepared and published:

Compendium of the Eleventh Census, Parts I, II, and III.

Abstract of the Eleventh Census, first and second editions.

Monographs not included in any final reports have been issued as follows:

Vital Statistics of the District of Columbia and Baltimore.

Vital Statistics of New York and Brooklyn.

Vital Statistics of Boston and Philadelphia.

Social Statistics of Cities.

Monographs published, and which have been incorporated in final reports, are as follows:

Marble Quarrying.

Moqui Pueblo Indians.

Eastern Band of Cherokee Indians.

REPORT OF COMMISSIONER OF LABOR IN CHARGE OF CENSUS.

"Six Nations" Indians.

"Five Civilized Tribes" Indians.

Indians taxed and not taxed (except Alaska).

Electrical Industries in the State of New York.

Education.

Street Railways.

Transportation on the Pacific Coast.

Transportation on the Rivers of the Mississippi Valley.

Transportation on the Great Lakes.

Textiles.

Irrigation.

Glue.

Special Report relating to Occupations.

After providing for the final volumes listed above, Congress authorized the publication of a Statistical Atlas. At the close of the Ninth Census a Statistical Atlas was prepared and published by the Government, but for the Tenth Census the Atlas was published by Charles Scribner's Sons as a private enterprise, but Congress thought it wise to make the Statistical Atlas for the Eleventh Census an official document. This atlas is an extra feature and not one of the regular census volumes. It is now the only work of the Eleventh Census not out of the hands of the Census Office. The copy for the illustrations has long been in the hands of the contractors for reproduction, while all the proof of the text of the Atlas is in hand and revised. The only thing remaining to be done, therefore, pertains to the "care and preservation of the records of the Eleventh and previous censuses," and consists in going through the accumulated material, sorting out that which is necessary to be preserved under the law and the present practice of the Department (original schedules, files, and records relating to the organization and administration of the Census Office), and that material which it is desirable to keep for future use, such as intermediate sheets containing details which have not been published, from that which has been fully utilized and may be disposed of without loss or inconvenience.

In this connection I desire to call your attention to the recommendations contained in Mr. King's official communication of August 25, 1897 (Appendix B), which pertains to matters which have come more particularly under his observation than my own, but from my knowledge of the condition of the records and the best methods of preserving them, I have no hesitancy in approving his recommendations.

The total cost of the Eleventh Census is best measured by the total amounts appropriated from time to time. These aggregate \$11,553,462.50. The cost of printing, engraving, and binding the final results may be a little less than the amount appropriated for that particular feature of the Eleventh Census, but in all probability the amount given is as near the exact cost of the Eleventh Census as it can be stated at present. I see no necessity for any further appropriations on account of the census work, although it may be necessary to provide

for the further care and preservation of the material, as recommended by Mr. King.

In my report for the fiscal year ending June 30, 1896, I called attention to the joint resolution relating to the Federal census, approved March 19, 1896, under which I was directed to correspond and confer with census officers of other governments, for the purpose of securing uniformity in the inquiries relating to the people, to be used in the census of 1900 and future censuses. I have attended to the duties imposed by that resolution, and have made-written report to a committee of the International Statistical Institute, consisting of census officers of different governments, and which was raised to consider the whole matter of a decennial census for the year 1900. The deliberations of this committee have not as yet been made public; but they show that there is no possibility of establishing a uniform date for different national censuses.

By the same joint resolution I was also directed to report to Congress for its consideration a plan for a permanent census service. In accordance with this provision I submitted a report to Congress December 7, 1896, which was printed as Senate Doc. No. 5, Fifty-fourth Congress, second session, and the plan submitted was in the form of a tentative bill, as the most comprehensive and concrete manner of carrying out the instructions of Congress. The census committee of the Senate considered his report and plan, giving a hearing thereon and reporting substantially the bill which I had recommended. No legislative action was taken during the Fifty-fourth Congress, but at the extra session of the Fifty-fifth Congress the bill was again reported by the census committee and is now on the Senate calendar. Should that bill, or one substantially like it, be passed during the early period of the coming session of Congress, detailed plans for the Twelfth Census can be perfected and submitted to Congress in time for complete preparation for that enumeration. It would have been much better had legislation taken place last winter, and thus secured more time for the details of preparation for the Twelfth Census; but if a census bill becomes law early the coming winter, whoever has charge of the Twelfth Census will have a year's advantage of his predecessors, but none too much time for careful preparation. I trust, therefore, you will urge speedy action in securing the proper legislation for the Twelfth Census.

I desire to call your attention to a practice in the past which ought not to be continued, and that is, of allowing officers in the service of the Government to take charge of special features of the census without extra compensation. Both in the Tenth and the Eleventh censuses the Census Office was able to secure the invaluable services of gentlemen connected with the Government, but was unable under the law to make any allowance for the services rendered. In both the Tenth and the Eleventh censuses such services were freely given by Dr. John S. Billings, of the United States Army, in charge of vital statistics, and Prof. Henry

Gannett, of the Geological Survey, geographer; while in the Eleventh Census Dr. David T. Day, of the Geological Survey, had charge of the statistics of mineral industries, and Prof. Henry O. Adams, statistician of the Interstate Commerce Commission, had charge of the statistics of transportation. None of these gentlemen received any extra compensation, either direct or indirect, for their services in the Census Office. They are each deserving of especial mention at this time, the close of the Eleventh Census. I sincerely hope that in the future provision will be made for the reasonable compensation of any officer whose services may be secured. Of course, such compensation should not be equal to that given to a person not connected with the Government, but as such officers as I have named are obliged to attend to their census duties out of office hours very largely, it seems but fair and just that they should be compensated for their extra labors.

As Commissioner of Labor I was designated by the President to perform the duties of Superintendent of Census, under the direction of the Secretary of the Interior, until the closing of the work of the Eleventh Census, in accordance with the provisions of an act approved October 3, 1893. (Appendix A.) By the deficiency act of March 2, 1895, the office of the Eleventh Census was abolished and the unfinished work transferred to the office of the Secretary of the Interior, but by the same act the Secretary was authorized to continue the services of the Commissioner of Labor in charge of the completion of the Eleventh Census. By the force of events, therefore, my service in connection with the Eleventh Census comes to an end, and I respectfully request that I be relieved from all further responsibility under the acts named, in connection with the Eleventh Census.

In making this request I wish to thank you and your two immediate predecessors for the many courtesies they have extended to me in the difficult work of completing the census. Taking it at a time when the reduction of the force was going on, my duties were particularly arduous, especially with the pressure for appointment coexisting with the absolute necessity for the reduction of force. This experience taught me that had the office been under civil-service rules the great cost of the Eleventh Census could have been materially reduced, and the time of the publication of the results brought to a much earlier date. There is much that can be reformed in the conduct of the Census Office, but the reforms must begin with proper legislation. The experience of the Tenth and Eleventh censuses ought to be ample to enable the proper officers and the proper committees to adopt such measures as will reduce the cost and increase the value of future enumerations.

I am, very respectfully, your obedient servant,

CARROLL D. WRIGHT,
Commissioner of Labor in Charge.

Hon. C. N. BLISS,
Secretary of the Interior.

APPENDIX A.

[PUBLIC—No. 4.]

AN ACT to extend the time for completing the work of the Eleventh Census, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the time provided in the act making appropriations to supply deficiencies in the appropriations for the fiscal year eighteen hundred and ninety-three, and for prior years, and for other purposes, approved March third, eighteen hundred and ninety-three, for closing the work of the Eleventh Census, under the provisions of the act of March first, eighteen hundred and eighty-nine, entitled "An act to provide for taking the Eleventh and subsequent Censuses," and of any subsequent act relating to the Eleventh Census, be, and the same is hereby, extended from the thirty-first day of December, eighteen hundred and ninety-three, to and including the thirtieth day of June, eighteen hundred and ninety-four.

That the President of the United States may, in his discretion, authorize and direct the Commissioner of Labor to perform the duties of Superintendent of Census under the direction of the Secretary of the Interior until the work of closing the Eleventh Census is completed, at such additional compensation, payable from the appropriations for compiling the results of the Eleventh Census, as the Secretary of the Interior may determine, not exceeding one-half of the compensation now fixed by law for the Superintendent of Census.

Approved, October 3, 1893.

APPENDIX B.

DEPARTMENT OF THE INTERIOR, CENSUS DIVISION,
Washington, August 25, 1897.

SIR: I have the honor to report that the work upon the regular reports of the Eleventh Census was completed July 31, leaving a balance of \$122 of the appropriations available on the 1st instant.

There remains only the Statistical Atlas, an extra feature, the preparation of which was authorized after the regular reports were under way. For this I have the typographical matter in galleys, and am revising the proofs of the illustrations as fast as submitted by the contractors. It will, however, be some months before it is finally completed, as it requires considerable time to print the colored illustrations after the last proofs are corrected and returned. I have personally performed all of the work upon the atlas since it was turned in for transmittal to the printer, and will personally complete it.

The next subject which demands consideration is the disposition of the vast amount of material accumulated in the preparation of the reports and the administration of the office, and as under the present appropriation "for the care and preservation of the records of the Eleventh and previous censuses the Department is charged with the responsibility for the same, I respectfully invite your attention to the following statements and recommendations relative thereto:

The material referred to may be divided into four classes, as follows:

- (1) The original returns, or schedules.
- (2) Intermediate work, tabulation sheets, etc., containing details which have not been published.
- (3) Result slips; punched cards; surplus blanks; preliminary bulletins, published in the early stages of the work; copy and proofs, and other matter which has entirely served its purpose.
- (4) Files and records pertaining to the organization and administration of the office.

All of the original schedules relating to mortality, crime, pauperism, and benevolence, special classes (deaf, dumb, blind, insane, etc.), and a portion of the transportation and insurance schedules were so badly damaged by the fire which occurred in this building in March, 1896, that, by authority of the Department, they were turned over to the waste-paper contractor.

Such of the original schedules as are complete, and so much of the intermediate work as contains unpublished details, also the files and records relating to the force actually employed in the work, should be preserved; the remainder may be disposed of without loss or inconvenience.

All surplus stationery, supplies, and blank paper has already been turned over to either the stationery division or the custodian of the Department.

The work of assorting the material on hand has been prosecuted in intervals of awaiting proofs for the atlas, and the assorting of the files and records relating to the office force will require the services of the three clerks left at the conclusion of the work, who were transferred from the Census roll to the appropriation "for the preservation of the records" for that purpose, for some little time. The arrangement and collating of the miscellaneous schedules will require an additional force.

The great bulk of the material to be provided for consists of the original population and manufacturing schedules returned by the enumerators and the special agents, and which are stored partly in the basement and first stories of this building and partly in room 216 of the Department, where the records of all previous censuses are also stored.

The population and certain other schedules of previous censuses, from 1790 to 1880, inclusive, have been bound by States and counties, and are arranged on shelves, the amount of shelving being equal to one row 1,400 feet long. The room in which they are stored (216) is in the attic over the F street entrance, and, while a very good place for storage, it is most inconvenient and entirely unsuited for housing an immense library, which is what the census records practically make, and to which reference is constantly being made.

The population schedules of the Eleventh Census remain in the portfolios as transmitted by the enumerators, being tied up with twine and grouped by supervisors' and enumeration districts numerically. They are piled flat in racks. The arrangement by districts conveys no idea of locality, and this, together with the arrangement in the racks, makes it practically impossible to refer to the returns from any particular place without going through the whole contents of a rack, untying and examining the sheets. It has actually been necessary to do this for 50 or 60 portfolios to find a certain address, whereas, if bound, the contents would be plainly seen from the back lettering.

Owing to the form of schedule adopted for enumerating the population at the Eleventh Census, the bulk is enormously greater than at any previous census. This fact may perhaps better be appreciated when it is stated that the population schedules of this census alone will make five times as much as all the schedules of all the censuses preceding, and will require (if bound in volumes of uniform thickness) an amount of shelving equal to one row over 7,000 feet long, or about 30,000 volumes. The returns for New York City alone make between 800 and 900 volumes 3 inches thick, and those for the "Greater New York" between 1,400 and 1,500 volumes. These population schedules have been collated, all accounted for, and tied up, and are now in excellent shape to divide into volumes of uniform size for binding. They will, however, remain in this condition only so long as they are not disturbed. Any disarrangement will necessitate the whole work being done over to make certain of the proper order and sequence.

There are also the schedules for manufactures, education, fisheries, mines and mining, and others, in whole or in part, to be arranged and preserved, requiring an approximate amount of shelving equal to one row 2,000 feet long. These miscellaneous schedules are simply piled up here and there, accumulating dirt, and can not possibly be consulted or referred to in their present shape.

10 REPORT OF COMMISSIONER OF LABOR IN CHARGE OF CENSUS.

Assuming that the intention in providing for the care and preservation of these records was to maintain them in such shape that they might be used, I, therefore, submit and earnestly urge that a sufficient appropriation be asked for to arrange, bind, and shelve them, in accordance with the practice in the past.

I also submit that whenever arrangements are made to remove the records of this census to any other place the place selected should afford space to accommodate the records of the previous censuses from room 216, in order to bring the whole together under one roof for convenience in reference and to maintain them in proper order.

If the suggestion that these schedules should be bound—and I can easily convince anyone that they are of no practical value unless this be done—is considered good, I would further submit that it would be unwise to accept any proposition involving their removal until that work is done. I have had considerable experience in moving census material, and it has always resulted in much confusion, and sometimes loss, even when we had plenty of people fully acquainted with the material to follow it up immediately. Now there are none.

Present legislation requires, I believe, that all binding be done by the Government Printing Office, but a special appropriation might permit it to be done by contract at probably less cost; but whether done by the Government Printing Office or by private parties, none of them would have space to handle so large an amount of matter, and would find it far more convenient, and better in every way, to place the force on the second floor of this building, where there is ample space, unused, and bind them here. This would save expense of hauling to and fro, and obviate the chance of confusion or loss. I could then personally oversee the work as it progressed.

In regard to moving, I do not consider this building at all suited for its present use. We have had one fire here which caused considerable delay in the work and did a lot of damage, and I constantly fear another. The matter is here, however, and the place offers exceptional advantages, under the existing conditions, for binding the schedules in such shape that they may safely be moved anywhere.

Without considering the question of weight, and assuming the material and records properly shelved, with sufficient space to afford convenient access to them, it would require not less than 5,000 square feet to accommodate the records to be taken care of.

In view of the foregoing, and for the reasons stated, I respectfully submit the following recommendations:

(1) That this building be retained for such time as may be necessary under the terms of the old lease (as now held) which permits the same at the monthly rental of \$166.67.

(2) That an appropriation be asked for sufficient to arrange, bind, and shelve the records of the Eleventh Census, said appropriation to authorize the work to be done by contract, in this building, and under supervision of the Department; also to provide shelving necessary to contain the records of previous censuses, now in room 216.

(3) That the subject of future quarters be kept under consideration with the view of securing a suitable location, as any estimate of the space and shelving necessary depends largely on the arrangement of windows, doors, heating apparatus, etc.

If these recommendations accord with your views I will proceed to determine the amount of the appropriation necessary and submit an estimate for the same. There should be no difficulty in getting the consent of the Census Committee to such an expenditure, as the matter of binding the schedules was left open for future consideration when the appropriation was made for arranging the population schedules above referred to.

I have the honor to be, very respectfully,

THE SECRETARY OF THE INTERIOR.

WILLIAM A. KING, *Census Clerk.*

REPORT

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OF THE

DIRECTOR OF THE TWELFTH CENSUS

TO THE

SECRETARY OF THE INTERIOR.

1899.

WASHINGTON:

GOVERNMENT PRINTING OFFICE.

1899.

REPORT
OF THE
DIRECTOR OF THE CENSUS.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
Washington, D. C., November 1, 1899.

SIR: I have the honor to submit to you the following report of the operations of this office:

Congress provided for taking the Twelfth Census by an act approved March 3, 1899, entitled "An act to provide for taking the Twelfth and subsequent censuses." The undersigned was appointed director on the 4th of March, 1899, and qualified on the 7th of March. His assistant, Mr. Wines, qualified on the 10th of March.

A preliminary organization was effected by the appointment of Mr. A. F. Childs to the position of chief clerk; Mr. E. McCauley to that of disbursing clerk; and Mr. Henry Gannett, geographer. During the month of March four chief statisticians were appointed, namely: Mr. W. C. Hunt, in charge of the population division; Mr. W. A. King, vital statistics; Mr. L. G. Powers, agriculture; and Mr. W. F. Willcox, methods and results. In June, Mr. S. N. D. North was appointed to take charge of the division of manufactures.

The preliminary work is well under way. The forms of the schedules for taking the enumeration of the agricultural products and population have practically been determined upon and the division of vital statistics is doing considerable correspondence with the various boards of health throughout the country with regard to the work of that division. An effort will be made by this office to secure a uniform system of registration of deaths, so that more reliable statistics may be obtained.

A plan has been mapped out for the selection of experts to be employed as special agents and assigned to service in connection with the collection of statistics of manufacturing industries; with which they are familiar. The industries of the country have been grouped into sixteen classes. An expert agent will be put in charge of one or more of these groups and will have immediate charge of the special agents, who will be employed in gathering statistics concerning that subject.

A special agent has been appointed to look after the taking of the census in the Hawaiian Islands, and he has advised with this office concerning the work there. Two special agents have also been selected to superintend the taking of the census in the District of Alaska. They are now in Alaska for the purpose of doing the preliminary work.

REPORT OF THE DIRECTOR OF THE CENSUS.

Two hundred and ninety-five supervisors of census out of a total of 297 to be appointed have been selected and commissioned by the President. The law requires that the supervisors be confirmed by the Senate, and it is presumed that the names will be sent to the Senate for confirmation soon after Congress convenes.

A contract has been entered into between Mr. M. G. Emery and the Director of the Census, whereby a building will be erected for the use of this Bureau, to be ready for occupancy on or about the 1st of January, 1900. The building to be so erected will be especially adapted for the large force which it is expected will be employed in the census work. The contract made with Mr. Emery provides that the building shall be leased for a term of five years from the date of its completion at a rental of \$26,600 per annum, with an option on the part of the Government to renew the lease for a second term of five years at a rental of \$20,000 per annum. The right of purchase is also reserved to the Government should it desire to acquire the land and building at any time during the life of the lease.

In view of the large amount of supplies required for the use of the Census Office, and in order to purchase the same in an economical manner, it was deemed absolutely necessary to assign a special agent to act as purchasing agent. The census act does not contemplate the selection of a person for this particular purpose. It is recommended that an amendment be made to the census act, by which the office of purchasing agent may be created and made a permanent one in the personnel of this Bureau. It is proper to add in this connection that quite a large saving has been effected already by means of the plan adopted, and, as a very large amount of supplies and furniture will be required to carry on the census work, it is respectfully urged that provision be made by Congress for the creation of a purchasing department in the Census Office.

The act of March 3, 1899, under which the Census Office is being operated, provides that the reports concerning the four general subjects—namely, population, vital statistics, agriculture, and manufactures and mechanical industries—shall be completed and published by July, 1902. This will involve the employment of a very large force for two years, beginning about June, 1900. The act provides for five expert chiefs of division, ten clerks of class 4, fifteen clerks of class 3, and twenty clerks of class 2. The five positions for expert chiefs of division have been filled by the selection of experts to look after particular branches of the work. After a careful consideration of the whole subject, it has been deemed wise to recommend an amendment to the law, so as to provide for two additional chiefs of division at \$2,000 per annum, five additional clerks of class 4, six of class 3, and eight of class 2.

The Comptroller of the Treasury, in a communication to the Director of the Census, dated May 26, 1899, holds that this office may not purchase books and documents necessary for use in the Census Office work out of the appropriation made by the act entitled "An act to provide for taking the Twelfth and subsequent censuses," approved March 3, 1899, for the reason that the act does not specifically provide for their purchase. The decision is based on section 3 of the act of March 15, 1898 (30 Stat. L., 316), which is as follows:

That hereafter law books, books of reference, and periodicals for use of any executive department, or other Government establishment not under an executive

REPORT OF THE DIRECTOR OF THE CENSUS.

department, at the seat of Government, shall not be purchased or paid for from any appropriation made for contingent expenses or for any specific or general purpose, unless such purchase is authorized and payment therefor specifically provided in the law granting the appropriation.

It is necessary, therefore, that legislation be had at the earliest practicable date to provide for the purchase of certain books of reference and documents, which are absolutely necessary for the proper administration of the work of this office.

It is estimated that there will be required for the purpose of taking the census over 50,000 enumerators, over 2,500 clerks, and over 2,000 special agents. The clerical force has been apportioned to the various States and Territories on a population basis, and an examination of every applicant, to test his or her capacity for the special work required, is being insisted upon, as required by law. The entire office force now numbers 182, most of whom are women employed as skilled laborers in doing the preliminary work.

A financial statement is attached hereto, showing the disbursements of this Bureau up to October 31, 1899.

Respectfully submitted.

WILLIAM R. MERRIAM,
Director.

The SECRETARY OF THE INTERIOR.

Financial report to October 31, 1899.

Amount appropriated	\$1,000,000.00
Amount advanced to Sam C. Dunham, special disbursing agent, by Secretary of the Treasury	\$10,000.00
Amount advanced to Arthur F. Wines, special disbursing agent, by Secretary of the Treasury	5,000.00
Amount disbursed by disbursing clerk to October 31, 1899.	88,146.88
	<hr/> 103,146.88
Balance unexpended	<hr/> 896,853.12
Amount disbursed for—	
Salaries of employees	61,322.74
Furniture and fittings	7,713.28
Rent	3,763.68
Special agents	2,708.87
Printing and stationery	7,479.58
Miscellaneous	5,158.73
Total	<hr/> 88,146.88

SALARIES IN DETAIL.

March pay roll	\$1,618.05
April pay roll	3,688.48
May pay roll	5,177.35
June pay roll	7,292.16
July pay roll	8,858.67
August pay roll	9,949.09
September pay roll	10,878.22
October pay roll	13,860.72
	<hr/> 61,322.74

REPORT

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OF THE

DIRECTOR OF THE TWELFTH CENSUS

TO THE

SECRETARY OF THE INTERIOR

FOR THE

FISCAL YEAR ENDED JUNE 30, 1900.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1900.

REPORT

OF THE

DIRECTOR OF THE TWELFTH CENSUS.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
Washington, D. C., November 1, 1900.

SIR: I have the honor to offer the following relative to the operations of this office from November 1, 1899, to the above date. In submitting this statement the better plan seems to be to present the work with reference to its various subdivisions.

SUPERVISION AND FIELD WORK.

The preliminary work incidental to the taking of the Twelfth Census, referred to in my former report, was continued with great activity up to June 1, 1900. In that report the statement was made that 297 supervisors were to be appointed and commissioned by the President. The list of names was submitted to and confirmed by the Senate during the months of December, 1899, and January, 1900.

As soon as the supervisors were confirmed active measures were taken to instruct them with reference to the duties imposed by section 10 of the act, particularly in regard to securing competent enumerators. At the time of forwarding the applications of enumerators to this office the supervisors were requested to transmit evidence of the capacity of such persons to perform the duties contemplated by the submission of a test schedule, which each applicant was required to write out in full. This test device was simply the regular form of a population schedule filled out in hypothetical manner. Some 300,000 applications for positions as enumerators were received. After an examination of the applications and test schedules, 53,173 enumerators were finally selected from the number mentioned above and assigned as follows: +

Regular enumeration districts	52,100
Institutions (penitentiaries and asylums)	627
Military posts and naval stations	155
Assistants on Indian reservations	147
Territory of Alaska (special agents)	37
Hawaii (special agents)	107
Total	53,173

The candidates were duly commissioned, sworn in, and were ready for duty on the day set by law for the commencement of the enumeration.

It is proper to remark at this point that one great difficulty encountered by the officials in charge was in obtaining properly trained men

to assume the duties incident to the field work. It is to be borne in mind that almost the entire success of the census depends upon the efficiency of the supervisors and enumerators. With the exception of certain cities, placed in the hands of special agents for the purpose of gathering manufacturing statistics, all of the information relative to population, agriculture, vital statistics, and manufactures, is obtained through the medium of the enumerators; hence the practical results of the entire undertaking are dependent largely on the character and efficiency of those engaged in collecting the basic facts.

The officials of the Bureau, of course, have very little means of knowing the character or fitness of the supervisors, as necessarily the office must rely upon the representations, in the selection of these officials, of those in the various States and Territories who are familiar with local affairs. The supervisors, as a rule, have been most efficient and capable. Their success depends, however, largely upon securing capable assistants. As necessarily the period of employment of the enumerators was of very short duration, varying from fifteen to thirty days, it was in some parts of the country quite difficult to obtain competent men to serve.

It can be stated that the results of the field work of the Twelfth Census have been, in the main, satisfactory in view of the system. It is possible that some suggestions may be made later on to you, and through you to Congress, whereby a more thorough and accurate enumeration of the country can be obtained. It may not be improper to call attention to the fact that, could a complete system of registration areas be established in all parts of the country and the same enforced, a plan might be devised for the collection of statistics which would be far preferable to the one now in use.

At this writing all of the data collected by the supervisors and enumerators in the different parts of the country has been received and is now in process of tabulation. The enumerators have been paid for their services at a higher rate than heretofore. There was considerable complaint in the last census on the part of enumerators, owing to dissatisfaction with the compensation received. In this census, in order to avoid a similar criticism, the officials endeavored to adjust the rates, so that each enumerator would receive at least an average of \$3 for each day employed. The average sum paid the enumerators in the Twelfth Census was about \$65, while in the last it was \$55.28.

The disbursing clerk discharged the liabilities to the enumerators this year with more promptness than heretofore, owing to the method of handling the accounts established by the act of March 3, 1899. Section 10 of the act referred to prescribes that each supervisor shall make up and forward to the Director the account required for ascertaining the amount of compensation due each enumerator. The section further provides that the account shall be duly sworn to by the enumerator as correct, and if so found by the supervisor, he is required to certify said account to the Director, who must accept the same and make payment thereon. The law requires the Director to accept these accounts as certified, but the general responsibility conferred upon the Director by the census act, as well as proper business methods, demanded that the vouchers forwarded by each supervisor should be carefully examined, in order to determine their correctness before payments were made. The law, as observed, provides that these accounts shall be

"duly sworn to," and it is this particular phraseology of the act which caused some delay in paying the enumerators. In order to facilitate payment, it was deemed advisable to secure an opinion from the Comptroller of the Treasury as to what would be acceptable to the accounting officers of that Department. The Comptroller held:

In the absence of any express authority, it is evident that the words "duly sworn to" must be given their most natural and obvious meaning, and must be held to mean that the accounts shall be sworn to before an officer duly authorized to administer an oath or affirmation.

Under this decision the Census Office required that the seal of the officer administering the oath be affixed to each account, and in the absence of a seal that a certificate be attached to the document to the effect that the right to administer oaths was vested in such official. In most communities these requirements did not seriously affect the work of the office, but in sparsely settled districts, particularly in the West, the only officer within perhaps a radius of 50 miles empowered to administer an oath would be a justice of the peace who had no seal, in consequence of which the enumerator was not only compelled to pay for subscribing to the oath before that officer, but was compelled to obtain a certificate, at considerable trouble and expense, showing the authority of the justice of the peace. In many cases accounts were received evidenced by an oath, but with no certificate attached. Hence arose delay and more or less dissatisfaction among enumerators, who, in many instances, did not appreciate the fact that the census officials were obliged to comply with all the formalities of the law.

In districts where the enumerators are paid per capita it seems unnecessary that the accounts should be sworn to, inasmuch as they are carefully checked by each supervisor and by the members of the office force. In per diem districts the object is to compel the enumerator to affirm that he has worked at least ten hours per day, in accordance with the terms of the census act.

Experience seems to indicate that prior to the next decade the law should be amended so as to confer upon the head of the Bureau the power to make such rules as he may deem proper and necessary in regard to the adjustment of these accounts to insure their prompt settlement. If this power were lodged in the Director he could determine in which of the districts or States the accounts should be sworn to, and thus save confusion, correspondence, and unnecessary delay in compensating the enumerators for the services performed.

Section 16 of the act of March 3, 1899, prescribes that no claim for mileage or traveling expenses shall be allowed any enumerator, except in extreme cases, and then only when authority has been previously granted by the Director of the Census.

In previous censuses, as well as the twelfth, the short time allowed for the organization of the Bureau made it impossible to ascertain all the conditions as to topography and density of population in each subdivision known as an enumerator's district. In consequence of this certain contingencies arose during the progress of the enumeration making it necessary for the enumerators to incur traveling expenses to hasten their work. The law requires that the enumeration in cities of 8,000 and over shall be completed within fifteen days and in country districts in thirty days. The enumerators working in the field miles from a post-office have not the time to communicate with

the supervisor and thus obtain authority from Washington, as required by law. In many instances enumerators, impressed with the importance of their work, have not hesitated to proceed without authority, but as the allowance can not be made legally their compensation in some instances has been far too low and evidently not in accordance with the spirit of the act that all enumerators shall be fairly paid. Under existing circumstances it is impossible to carry out the intention of this portion of the law, and I would respectfully recommend that the act, before the work of the next census begins, be so amended as to confer authority upon the Director to grant enumerators the right to travel should exigencies arise making it necessary for them to do so, or that additional power be granted the supervisors of census to authorize expenses of this nature without reference to the Washington office, under such regulations as may be prescribed by the Director of the Census.

COTTON GINS—PAYMENT FOR INFORMATION.

For statistical purposes, considered important, it was deemed advisable to secure, apart from the regular manufacturing schedules, certain facts regarding cotton gins. In the preparation of the blanks used by the enumerators for this purpose, a sentence was inadvertently included promising compensation to the enumerators making returns, at a rate of 5 cents for each gin reported. In order to make the inquiry of any value, it was essential that each cotton gin should be included. The fact that the language of the sixteenth section of the census act reads—

not less than twenty (20) nor more than thirty (30) cents for each establishment of productive industry enumerated—

was overlooked until the distribution of the schedules and when too late to recall the same. Under this section of the act, the Comptroller held that these accounts could not be paid. In consequence of the representations made to the enumerators and the prompt and efficient manner in which the returns have been made, I would respectfully recommend that Congress be requested to pass additional legislation authorizing the Director of the Census to pay all additional enumerators' accounts submitted specifically for the collection of these statistics at the rate of 5 cents for each gin reported.

Up to the present time returns have been made for 26,173 gins at a cost of \$1,308.65, and the total cost of the work will not exceed \$1,500. In view of the fact that these accounts will only average 20 cents, and the present law requires the accounts to be sworn to, which at a minimum expense of 25 cents would absorb the enumerator's earnings, I further recommend that the jurat to the accounts be waived and that they be paid on the certificate of the chief statistician for manufactures, as to the correctness of the same.

STREET BOOK AN INNOVATION IN CENSUS ENUMERATIONS.

In the enumeration of the larger municipalities of the country every precaution was taken to insure a thorough canvass of each city in order to avoid, so far as possible, any reasonable ground of complaint as to the correctness of the population returns. As a means to this end the supervisors were allowed to employ special agents to assist

them in supervising the work of the enumerators in large cities; and in addition there was used what has been termed a "street book." The use of such a book is an innovation in census work. This street book was compiled by the use of insurance maps for the larger cities in which the book was used.

The object was to enable the enumerator in each city district to make a record of the houses and buildings visited by him each day, the number of families and persons found in each house or building, and the date visited; and, on the other hand, if no persons were found in any house or building, to enable him to indicate the same. By means of the street book, therefore, the enumerator was required to account for each and every house, building, or place of abode, of whatever kind, within the limits of his enumeration district, the record being made in such form as to permit of easy verification of the completeness of the house-to-house canvass.

The enumerator was directed to canvass his district by blocks, starting at one corner of the block and, before leaving it, going around and through the entire block, keeping always to the right, and going in and out of any court or alley that might be included in said block, until the point of starting was again reached.

The portfolio for each city district also contained a map of the enumeration district, and each block in the district was designated by a letter or a number on said map. Each block was canvassed in its order as lettered or numbered, and the work was completed in each instance as far as possible before work in the next block was commenced. The enumerator was also instructed to indicate on the population schedules the beginning and end of his work in each and every block comprised within his enumeration district.

By the use of this device a complete check was had upon the work of the enumerators in city districts, and the census supervisor, as well as this office, was in a position to determine, without undue labor, whether or not the work in each city district had been properly done, inasmuch as the street book, when correctly made, furnished in itself all the evidence that is necessary to establish the completeness and the correctness of the work of the enumerators in the larger cities of the country. By its use in the present census a most effective agent was provided to secure a much more thorough canvass of city districts than has been possible heretofore, and as a result thereof there has been to date no case where it has been proven that the work of the enumerators in city districts, taken as a whole, had been so faulty or incomplete as to warrant the reenumeration of any city, either in whole or in part.

While the street book may seem to duplicate certain facts reported on the population schedule, the information derived from it showing the vacant lots, character of buildings, etc., tended to aid this office, as suggested above, in ascertaining the correctness of the work done by the enumerators in the great cities. I give below an itemized statement of the cost of these books, including the additional amount of one-half a cent per name allowed the enumerators for making the entries. The insurance maps will be sold in the manner prescribed by law, and will probably reduce the total sum named below in the neighborhood of \$1,500.

COST OF STREET BOOKS.

Amount expended for clerks to make up books:

Baltimore.....	\$1,755.65
Boston	768.28
Brooklyn	377.67
Chicago	2,437.47
New York	3,902.08
Philadelphia.....	1,195.35
St. Louis.....	658.32
Total.....	11,094.82
Total cost of insurance maps	4,895.00
Total population of cities, 18,432,418—on basis of one-half cent per name	92,162.09
Cost of printing street books	2,721.64
Total cost.....	110,873.55

Before leaving this subject it seems eminently proper to call attention to the views of Dr. F. H. Wines, assistant director, who has had long experience in census work, concerning the value of the use of the book. In a letter to the Director, under date of October 13, 1900, Dr. Wines writes as follows:

1. The preparation of these books by the supervisors was a great assistance to them in making themselves thoroughly familiar with the cities they had to enumerate.
2. The placing of these books in the hands of the enumerators had the necessary tendency to make them far more careful and thorough in their work, since they knew that the supervisor would thereby be enabled to detect any voluntary errors on their part, either by way of omission or commission; and it also placed in the hands of the office the necessary proof with which to convict them criminally in case of deliberate fraud on the part of any of them.
3. At the proper time, by the aid of these books, a census of houses in the larger cities of the United States can be made, which will show to what extent the tenement-house evil prevails in each of them; also whether the supply of houses meets the actual demand or falls below it.
4. The possession of these books was an immense protection to the office against charges of negligence in taking the census.

EXAMINATIONS AND CLERICAL WORK.

The organization of the office, so far as the clerical force is concerned, was not completed until July 1, 1900, examinations beginning May 3, 1899, and continuing until the above date. A series of examinations for clerical positions was held in Washington, D. C.; Boston, Mass.; Lansing, Mich.; Cincinnati, Ohio; Chicago, Ill.; St. Paul, Minn.; Omaha, Nebr.; Topeka, Kans.; St. Louis, Mo.; New Orleans, La.; Atlanta, Ga.; Portland, Oreg.; San Francisco, Cal., and New York City. These examinations covered a period of about fifteen months, and practically closed July 1, 1900. Up to July 1 the whole number examined was 6,336, from which an eligible list of 3,530 was secured; that is, 3,530 attained the required average of 75 per cent, while 2,806, or 44.29 per cent of the whole number examined, failed to pass. During July and August a total of 103 applicants were examined to make up quotas not already filled, of whom 43 passed and 60 failed. This makes the total number examined 6,439, of whom 3,573 passed and 2,866 failed.

The total cost of the series of examinations, including the salary of the chief examiner and his assistants, traveling expenses, subsistence, rent, stationery, etc., was \$8,611.08. This amount represents an expense

of \$1.36 for each person examined, or \$2.44 for each person now on the list eligible to appointment.

The plan was adopted by the office of examining applicants in accordance with the law for positions including and above the grade of skilled laborer, and has resulted in procuring a superior order of clerical assistance. The examination was insisted upon, save in cases where the persons desired to act as laborers, watchmen, charwomen, folders in the printing division, or experts in certain branches of the work.

The clerical force was selected from the various States and Territories on a basis of population. It is very gratifying to state that those immediately in charge of the several divisions of the office are thoroughly satisfied with the proficiency and ability of the clerks in their respective divisions. About 1,000 of the clerks were chosen to do temporary work and will be dropped from the rolls between now and the 1st of January. The balance of the force, some 2,400 or 2,500 people, will be retained until the middle or latter part of next year. The work is progressing so rapidly, however, that it is quite evident the services of a large number of the clerks will have to be dispensed with from time to time as various portions are completed.

The examinations were confined principally to questions in arithmetic, English, tests in writing, and a few incidental questions of a general nature. It was not deemed necessary to examine applicants upon any subject which would not be of use in the census work.

DIVISION OF METHODS AND RESULTS.

For the first time in the history of census work a division of methods and results was created soon after the preliminary organization was effected. The object of the division was to bring to the work the point of view and experience of a teacher of statistics and writer upon census topics, and to strengthen the confidence in the Census Office on the part of scientific organizations dealing with census results.

Immediately upon the creation of the division it undertook to gather a library of books relating to census work in this country and abroad. The remains of the library of the last census were examined, and the books likely to prove of value were catalogued and arranged on shelves. Correspondence with State officials, municipal authorities, and foreign statistical offices was opened, and many valuable documents were obtained without cost. Later the aid of the State Department was obtained in an effort to secure the census volumes of foreign countries and now the Census Office has probably the fullest American collection of foreign censuses, and a complete set of the censuses taken by American States since 1890. In all, it has on its shelves at present about 6,000 volumes and pamphlets.

As this material accumulated an effort was made to gather clerks who might interpret it by comparing the methods of tabulation and interpretation employed elsewhere with those practiced in the United States, and, as a result, offering suggestions for the modification of American practice where it seemed capable of improvement. In order to obtain the end desired, it was necessary to secure clerks who were able to read the modern languages in which the most important documents were written, and had some acquaintance with statistics and economics.

In order to obtain clerks of the ability desired, a letter was addressed by me, on October 20, 1899, to the presidents of a number of the leading American universities, asking them to recommend suitable persons to be employed as indicated above. About eight of the universities responded to the request. These specially trained students were appointed clerks in this division, and six of them are still engaged in the work. Under the direction of the chief statistician for methods and results, these clerks have prepared valuable reports upon certain census topics, and the results are now in the office files.

The future work of the division will consist largely in extending these reports, including the figures of the Twelfth Census and an interpretation of the same, establishing the best topical arrangement and sequence, supplementing these studies as may be necessary by reports from outside experts on topics which can be so handled to advantage, and preparing the whole for publication as a special report.

DIVISION OF VITAL STATISTICS.

This division is provided for in the act of March 3, 1899, and it is hoped that the plan adopted will give more accurate information than heretofore obtained. A statement is herewith submitted showing the conditions of the various branches of this important work.

REGISTRATION RECORDS.

The correspondence with local registration officials for the purpose of securing modifications in the forms of returns used so as to embrace the essential items required for the compilation of uniform statistics was concluded, with the result that the forms in use, so far as controlled by the State authorities, were satisfactorily amended in the following States:

California, Colorado, Connecticut, District of Columbia, Kansas, Maine, Michigan, Minnesota, New Hampshire, New York, North Dakota, Pennsylvania, and South Carolina.

In Arkansas, Iowa, Missouri, and Ohio the State boards of health approved the suggestions made, and recommended that forms in local use in cities be changed as desired. Other State boards have also accepted the recommendations of this office, and announced their intention to put them into effect as soon as circumstances permit.

The forms in use under local ordinances in 71 of the principal cities in other States than those first mentioned were also either amended as desired or the form recommended by this office adopted in entirety and put into use.

Local reasons operated, unfortunately, in many places to prevent the introduction of the new forms in time to give us the full benefit of the change in the statistics for the census year, but through the efforts made the registration data recorded throughout the country have been rendered much more uniform, and therefore more valuable, than heretofore.

In case of the States and cities where the local authorities reported themselves unable to effect the desired changes the efforts mentioned have been repeated in order to bring them into harmony with the others, although this action will not inure to the benefit of the statistics now projected.

SANITARY DISTRICTS.

In Boston, New York, Philadelphia, Baltimore, Washington, Buffalo, Cleveland, Chicago, St. Louis, Louisville, and Cincinnati the cities were divided into "sanitary districts" according to conditions affecting the healthfulness of different localities, for which districts statistics will be presented in the reports. This work was done by local people, approved by the health officials, and has been concluded.

RECEIPT OF RETURNS.

The receipt of schedules from the enumerators has been substantially concluded, the number of deaths reported being 686,488; at the same time transcripts of registration records aggregating 545,131 deaths have been received. Transcripts arranged for but not yet in hand will raise this number to about 610,000.

These returns were counted, arranged, and filed, and the necessary check lists prepared ready for the subsequent operations.

COMPARISONS.

The bulk of the work to be performed before the data can be transferred to the cards consists in comparing the two classes of returns for the elimination of duplicates, and to secure the most complete information concerning the cases reported. This represents about two-thirds of the preliminary work necessary to be done before the actual compilation can be commenced.

This work is now well under way and is proceeding as rapidly as possible. The delay in receipt of the registration transcripts for certain States and cities has not affected the progress of the work.

In connection with the comparison to eliminate duplicates the omission of certain details concerning deaths reported in the registration records has been supplied in the following cases from the enumerator's returns:

Color, 47; sex, 50; age, 33; conjugal conditions, 2,337; birthplace of person, 4,773; birthplace of father, 12,759; birthplace of mother, 13,897; occupation, 5,303; and cause of death, 293.

EDITING.

In adapting the written return to the punching of the data every detail which requires a different symbol is edited by supplying the appropriate symbol so that the punch operator will have nothing to construe, and will lose no time in referring to instructions. There have been thus edited 425,000 from the enumerator's returns (except as to occupation, and partially, cause of death) and 201,000 from the registration records. This work is being kept closely behind the comparisons which must first be completed.

GENERAL WORK.

A summary of the laws governing registration in different States and cities, and the practice thereunder, is in preparation, which will afford a complete view of the subject, particularly in those phases which affect the work of this office in endeavoring to utilize the data available from these places.

The forms of result slips to be used in reducing the readings from the electrical-counting machines to tabular form have all been worked out and printed, and the rough drafts of the tabulation blanks which will carry "copy" for the printer have been prepared.

The preliminary work required to collect and complete the data, and to adapt them to the system of tabulation employed has been complex and difficult, but is now nearly finished. With the actual work of compilation the work assumes an entirely new phase, and the compiling of the tables will be comparatively simple and easy.

DIVISION OF MANUFACTURES.

The work of the division of manufactures has been organized on lines intended to insure compliance with the provision of the census act which requires the results of the census in this division to be completed and published by July 1, 1902.

In accordance with the methods employed at two previous censuses, 1,346 cities and towns were withdrawn from the enumerators to be canvassed by special agents appointed for that purpose. The number of special agents thus employed was 2,106; and they were assigned to the several cities in proportion to their importance as manufacturing centers, one agent being often assigned to collect the statistics in two or more smaller towns immediately contiguous to each other. The work of these agents has returned to the office something over 300,000 schedules, at a cost which will approximate \$400,000, and which compares very favorably with the cost of field work ten years ago. An equal number of manufacturing schedules has been received from the enumerators, making a total of some 600,000 schedules as against 355,415 tabulated ten years ago, and showing that the canvass has been much more closely made than was then the case. Taking an advantage of the fact that the census act does not fix a definite date for the commencement of the census of the manufacturing and productive industries, but allows the business year of the establishments reporting to be taken as the census year, the Director ordered that the canvass in twelve of the largest cities should begin on May 1, instead of June 1, when the field work of the other divisions of the census was inaugurated. By the gain of this month it has been possible to substantially complete the canvass throughout the entire country by the first of November—a record altogether without precedent in census history. All that now remains in the way of field work is the gathering of returns from delinquent establishments missed by the enumerators or special agents in their rounds, and securing corrections in defective returns. In the meanwhile the work of preparing the manufacturing schedules for tabulation has been progressing rapidly during the progress of field work, and the classification and revision have already reached a stage which indicates that this work may be completed by October 1, 1901.

The office force of the division of manufactures consists of about 300 clerks, 50 of whom are assigned to service with the expert special agents intrusted with the preparation of the statistics of certain selected industries of sufficient importance to entitle them to specially detailed treatment. The work of all these expert special agents is abreast of the general work in the Census Office proper, and it is hoped that the special reports they are to prepare will be ready for publication simultaneously with the general report at the date fixed by Congress.

The list of these special agents and the several industries committed to their charge is as follows:

Cotton manufactures, and flax, hemp, and jute manufactures, Edward Stanwood, 201 Columbus avenue, Boston, Mass.

Wool manufactures, and hosiery and knit goods, William J. Battison, 70 Kilby street, Boston, Mass.

Silk manufactures, Franklin Allen, Silk Exchange Building, New York, N. Y.

Iron and steel manufactures, William G. Gray, 261 South Fourth street, Philadelphia, Pa.

Leather manufactures, George C. Houghton, 116 Bedford street, Boston, Mass.

Glass manufactures, Shirley P. Austin, 417 Wood street, Pittsburg, Pa.

Brick and clay products, Jefferson Middleton, U. S. Geological Survey, Washington, D. C.

Smelting and refining metals, Charles Kirchhoff, 232 William street, New York, N. Y.

Machinery and electrical apparatus, Edward H. Sanborn, The Bourse, Philadelphia, Pa.

Coke, salt, and clay products, Edward W. Parker, U. S. Geological Survey, Washington, D. C.

Chemicals, Dr. Charles E. Munroe, Columbian University, Washington, D. C.; assistant, Dr. Thomas M. Chatard, Columbian University, Washington, D. C.

Paper manufactures, Charles W. Rantoul, jr., Times Building, New York, N. Y.

Lumber and its manufactures, William L. Wallace, 315 Dearborn street, Chicago, Ill.

Shipbuilding, Alexander R. Smith, 700 Fourteenth street, Washington, D. C.

Food and kindred products, Henry E. Alvord, Department of Agriculture, Washington, D. C.

Flour and grist mills, Dr. H. W. Wiley, Department of Agriculture, Washington, D. C.

Beet-sugar industry, Dr. G. L. Spencer, Washington, D. C.

AGRICULTURAL DIVISION.

The reports of this division of the Census Office are on a subject in which a large portion of our people take a deep interest. It is anticipated that the general plan adopted for the tabulation and publication of the statistics of the agricultural division will, if carried into execution, involve a greater expenditure of money than was made by the same division in the Eleventh Census.

In the census of 1890 less than one volume was devoted to the presentation of the statistics of agriculture, while three volumes were published relating to manufactures, two to transportation, two to defective and delinquent classes, and two to insurance, etc. The small relative position assigned to the statistics of agriculture can be noted by the consideration of the following facts:

The capital invested in agriculture, according to the census returns of 1890, aggregated about \$16,000,000,000, while that in manufactures was only \$6,500,000,000, and in transportation less than \$11,000,000,000. The number of persons employed in agriculture in 1890 was over 8,000,000, while in manufactures and mechanical industries there were only 5,000,000, and in trade and transportation 3,330,000. The people supported by agriculture constitute in the neighborhood of 40 per cent of the total population, while the defective and delinquent classes make up only a small part of our people.

It will be noted that there were two volumes of reports concerning the defective and delinquent classes, while the report concerning agriculture was so small as to fill only about one-half a volume. It is submitted that agriculture always has been and will be the most important industry of the Republic. It is the one upon which the prosperity of the nation and welfare of the people quite largely depend. If any statistics are of value, they must be those which relate to agriculture and the condition of the people employed therein.

The statistics of agriculture in the last census consisted quite largely of an exhibit of the acreage and value of farms, the number and value of live stock, and the acreage and quantities of the leading crops raised. A few pages were devoted to an exhibit of farm tenure, but nothing was published in the volume on agriculture to show the comparative position of white and colored farmers—nothing concerning the relative value of production of the owned and leased farms or those of large and small area. The published statistics did not assist the student of social and economic conditions or the legislator to any definite conclusion with reference to the trend of society. They left uncertain whether the farmers as a whole are becoming more independent or are drifting to a position of increasing dependence upon the lessors of farms. Those statistics did not give the least information concerning the number of persons who own the land now operated by tenants, and thus threw no light upon the controverted question of the relative concentration of farm wealth in the hands of the few.

The students of economic and social conditions anxious to promote the common weal have not, therefore, been fully satisfied with the statistics of past censuses concerning agriculture. They know and appreciate fully the value of those agricultural statistics. They make use of the published facts concerning crops, animals, and farm values, but they desire statistics of the people who cultivate the farms and create farm values, crops, and animals. They desire to know all the facts that can be gathered concerning our small population of defectives and delinquents, but facts concerning the 40 per cent of our population engaged in agriculture are confessedly more important.

Our social students and legislators are aware that there is a large amount of tenancy in our land. They desire to know definitely whether tenancy is operating so as to improve the condition of the tenant as well as the owner, or whether it has a tendency to enhance the condition of the owner and reduce the tenant to a lower plane of existence.

The act of Congress authorizing the Twelfth Census reflected this popular desire. It directs that the agricultural schedules shall include inquiries relating to the race of farm occupants and to tenure as well as to the acreage and value of farms, the acreage, quantities, and value of crops, and the number and value of animals. The plans of the agricultural division of the Census contemplate the fulfillment of the act of Congress and a presentation of the statistics of agriculture that will be fully commensurate with the importance of the industry and the number of people engaged therein.

The volumes devoted to agricultural statistics will present the facts about land, value, animals, and crops by counties and States, as has been done for preceding decennial periods. In addition they will present those facts tabulated by race and color of farmer. Tabulated in this way they will exhibit the progress, if any, which the colored race has made since the era of emancipation, and show the opportunity of the humblest and poorest of our farmers to attain a higher level in the social scale.

It is contemplated not only to present all the leading facts of agriculture by race of farmer, but also by tenure, size of farms, and general character of farms. There will thus be a fivefold presentation of the leading facts of farm economics as compared with the single presentation of most of those facts in the census of 1890. To have such presentation of facts in the volumes of our report will require an

expenditure for tabulation of nearly twice that paid out in connection with the census of ten years ago, but only by such a presentation can the statistics of agriculture be given a relative importance equal to that assigned in the past to manufactures, transportation, and kindred subjects.

The plans of the division not only include making these important changes in the general treatment of the statistics of this industry, but they involve other changes that call for additional labor and cost in their preparation. Those changes, like the others already mentioned, are required to make the statistics of agriculture commensurate with the importance of the industry.

The main facts hitherto gathered by the census are made the basis by the Agricultural Department for its annual estimate concerning crops and animals. In those estimates vast numbers of people are deeply interested, and by them they are vitally affected. To comply with the popular demand and to assist the Agricultural Department, the Twelfth Census has adopted a new classification of farm animals. It is one that it is hoped will make a new basis for the estimates of the Department of Agriculture and prove of greater value than before. The proper presentation of the statistics of animals now gathered will add somewhat to the number of pages in the volume of our report. The tabulation of the facts relating to domestic animals in cities and towns which will appear in the report for 1900, but have never hitherto been taken, will also require some additional pages.

Congress in this, as in preceding decades, has directed the census to secure statistics of the value of products. By the methods adopted heretofore that value has been imperfectly reported. A method for securing the information demanded by Congress has been adopted in this census which, it is hoped, will result satisfactorily. It seeks to obtain the information called for by securing and tabulating the value of the several crops and farm products in detail. The proper presentation of these facts add somewhat to the bulk of the report. Its justification will rest upon whether or not the values reported are more or less trustworthy than those obtained in previous decades.

There are a number of other minor details in which the presentation of the statistics of agriculture for 1900 will differ somewhat from those of earlier decades. The methods which have been introduced have proved valuable in the experience of other governments. This new method of presentation will not interfere with the comparability of the figures of this census and preceding ones. The changes are all in the nature of additions to exhibits hitherto published. They have all been adopted because they were needed to make a proper presentation of what the people and Congress want to know concerning the condition of the tillers of the soil, their wealth, and their social and economic condition.

It is estimated that it will require in the neighborhood of \$1,250,000 to prepare and tabulate the agricultural statistics in accordance with the plan outlined above. The information concerning agriculture in the Eleventh Census cost in the neighborhood of \$498,000. The explanation which has been given shows why the expense will be so much greater as compared with the sum expended in the Eleventh Census.

It seems proper at this time to call attention to the fact that a contract has been entered into with the Hollerith Tabulating Machine Company for the use of the machines of that company in tabulating

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the returns of the agricultural schedules. The following table shows the estimated cost of the two methods of doing this work, namely, by hand and by the use of the Hollerith machines:

By hand:		
950 clerks, at \$900 each per annum		\$855,000
By Hollerith machines:		
350 punching clerks, at \$900 each per annum	\$315,000	
80 tabulating-machine clerks, at \$900 each per annum	72,000	
350 punching machines, at \$30 each	10,500	
66 tabulating machines, at \$1,500 each per annum	99,000	
100,000,000 cards, at 35 cents per thousand	35,000	
		531,500
Estimated saving by use of the Hollerith tabulating machines	323,500	

It is to be observed that the saving effected by the use of the tabulating machines is estimated at \$323,500 and clearly vindicates their use.

It is sincerely hoped that the expenditure of the large sum named, by this census, will result in giving to the public the information which seems to be so much demanded. The relative importance of agriculture in our industrial system has been amply set forth by the figures quoted herein, and seems to justify completely the apparent large expenditure to secure information in regard to the same.

POPULATION OF THE UNITED STATES.

I am very much pleased that the opportunity is afforded me of inserting, as a part of this report, the population of the United States, including the Territories of Hawaii and Alaska. The final figures have been ascertained through the means of the use of the Hollerith tabulating machines instead of the usual preliminary count ascertained from a computation of the names upon the various schedules. The result by States and Territories is shown by a statement attached hereto.

DISBURSING OFFICE.

A statement is submitted showing the operations of the disbursing division since the organization of the office, on March 5, 1899, up to and including October 31, 1900. An estimate is also submitted of the appropriations required for the fiscal year beginning July 1, 1901, and ending June 30, 1902. This estimate was forwarded to you with my letter of October 3, 1900.

Respectfully submitted.

WILLIAM R. MERRIAM, *Director*.

The SECRETARY OF THE INTERIOR.

REPORT

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OF THE

DIRECTOR OF THE TWELFTH CENSUS

TO THE

SECRETARY OF THE INTERIOR

FOR THE

FISCAL YEAR ENDED JUNE 30, 1901.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1901.

REPORT OF THE DIRECTOR OF THE TWELFTH CENSUS.

The amount disbursed is chargeable to the different branches of investigation as follows:

Administration:	
Salaries.....	\$1,323,034.44
Furniture and fittings.....	56,709.88
Printing machinery.....	31,982.05
Rent.....	34,185.10
Miscellaneous.....	149,450.37
	<u>\$1,595,361.84</u>
Supervisors:	
Compensation.....	322,819.50
Clerk hire.....	200,271.26
Miscellaneous.....	79,513.69
	<u>602,604.45</u>
Enumerators.....	3,492,168.06
Population.....	705,787.24
Vital statistics.....	53,067.22
Manufactures.....	484,342.17
Agriculture.....	319,187.56
Methods and results.....	17,738.49
Alaska.....	2,619.38
Hawaiian Islands.....	22,273.02
	<u>6,308,211.18</u>
Total.....	

APPENDIX C.

Statement of the condition of the appropriation for expenses of the Twelfth Census, November 1, 1900.

Appropriations, \$10,000,000; deposits, \$74.05.....	\$10,000,074.05
Less amount drawn by—	
Sam C. Dunham.....	\$45,000.00
A. F. Wines.....	1,793.65
Wm. A. Kelly.....	20,000.00
E. McCauley.....	174,616.09
H. A. Barrows.....	6,242,917.72
	<u>6,484,327.46</u>
Appropriations not drawn.....	3,515,746.59

RECEIPTS.

Requisitions.....	6,484,327.46
Disallowances refunded.....	150.86
Total receipts.....	<u>6,484,478.32</u>

DISBURSEMENTS.

Pay rolls.....	\$1,323,034.44
Furniture and fittings.....	56,709.88
Printing machinery.....	31,982.05
Rent.....	34,185.10
Miscellaneous.....	149,450.37
Special agents.....	451,258.05
Supervisors.....	602,604.45
Enumerators.....	3,492,168.06
Stationery.....	74,699.44
Government Printing Office.....	87,991.63
Census Printing Office.....	4,127.71
Sam C. Dunham.....	45,000.00
A. F. Wines.....	1,793.65
William A. Kelly.....	20,000.00
	<u>6,375,004.83</u>
Unexpended balance of amount drawn by disbursing clerk...	109,473.49
	<u>3,625,220.08</u>

Railroad accounts settled by Auditor for the Interior Department.....	\$2, 829. 70	
Telegraphic accounts settled by Auditor for the Interior Department.....	4, 200. 95	
		\$7, 030. 65

Amount available October 31, 1900..... 3, 618, 189. 43

H. A. BARROWS,
Disbursing Clerk.

APPENDIX D.

Estimate of appropriations required for the expenses of the Twelfth Census for the fiscal year beginning June 30, 1901, and ending June 30, 1902, in accordance with the act of March 3, 1899, and amendments thereto.

1. Director of the Census	\$7, 500
One assistant director	4, 000
Five chief statisticians, at \$3,000 each	15, 000
One chief clerk	2, 800
One disbursing clerk	2, 500
One purchasing agent	2, 500
One superintendent of printing	2, 500
One geographer	2, 500
One appointment clerk	2, 500
Seven expert chiefs of divisions, at \$2,000 each	14, 000
Two stenographers, at \$2,000 each	4, 000
Fifteen clerks of class four	27, 000
Twenty-one clerks of class three	33, 600
Twenty-eight clerks of class two	30, 200
One captain of the watch	840
Two messengers	1, 680
Total	162, 120
2. Clerks, copyists, computers, skilled laborers, watchmen, assistant messengers, laborers, messenger boys, and charwomen, 3,000, at \$900 per annum	2, 700, 000
3. Rental of quarters	40, 000
4. Stationery	25, 000
5. Furniture, carpets, ice, lumber, hardware, dry goods, advertising, telegraphing, expressage, horses, wagons, harness, food for and shoeing of horses, diagrams, awnings, shelving, file cases, file holders, repair of cases and furniture, fire, lights, and all other expenses for miscellaneous supplies	100, 000
6. Law books, books of reference, and periodicals, to be made a specific item in appropriation bill	1, 500
7. For use of machines of the Hollerith Tabulating Machine Company, including cards	150, 000
8. Printing and binding census reports	700, 000

TOTALS.

Item No. 1	\$162, 120
Item No. 2	2, 700, 000
Item No. 3	40, 000
Item No. 4	25, 000
Item No. 5	100, 000
Item No. 6	1, 500
Item No. 7	150, 000
Item No. 8	700, 000
Total	3, 878, 620

APPENDIX E.

POPULATION OF THE UNITED STATES, BY STATES AND TERRITORIES,
1890 AND 1900.

The following statement, which is made in advance of the official announcement in bulletin form, gives the population of the United States in detail for each State and organized Territory and for Alaska and Hawaii as finally revised. The figures purporting to give the number of "persons in the service of the United States stationed abroad" include an estimated population of 14,400 for certain military organizations and naval vessels stationed abroad, principally in the Philippines, for which the returns have not yet been received.

The total population of the United States in 1900, as shown by the accompanying statement, is 76,304,799, of which 74,610,523 persons are contained in the 45 States, representing the population to be used for apportionment purposes. This statement also shows a total of 134,158 Indians not taxed, of which 44,617 are found in certain of the States and which are to be deducted from the population of such States for the purpose of determining the apportionment of Representatives.

The total population in 1890, with which the aggregate population at the present census should be compared, is 63,069,756, comprising 62,622,250 persons enumerated in the States and organized Territories at that census, 32,052 persons in Alaska, 180,182 Indians and other persons in the Indian Territory, 145,282 Indians and other persons on Indian reservations, etc., and 89,990 persons in Hawaii, this last-named figure being derived from the census of the Hawaiian Islands taken as of December 28, 1890. Taking this population for 1890 as a basis, there has been a gain in population of 13,235,043 during the ten years from 1890 to 1900, representing an increase of very nearly 21 per cent.

No provision was made by the census act for the enumeration of the inhabitants of Porto Rico, but a census for that island, taken as of October 16, 1899, under the direction of the War Department, showed a population of 953,243.

States and Territories.	1900.	1890.	Indians not taxed, 1900.
The United States	76,304,799	63,069,756	134,158
STATES.			
Alabama	1,828,697	1,513,017	.....
Arkansas	1,311,564	1,128,179	.....
California	1,485,053	1,208,130	1,549
Colorado	580,700	412,198	597
Connecticut	908,355	746,258	.....
Delaware	184,735	108,493	.....
Florida	528,542	391,422	.....
Georgia	2,210,331	1,837,353	.....
Idaho	161,772	84,385	2,297
Illinois	4,821,550	3,826,351	.....
Indiana	2,516,462	2,102,404	.....
Iowa	2,231,853	1,911,896	.....
Kansas	1,470,495	1,427,090	.....
Kentucky	2,147,174	1,858,635	.....
Louisiana	1,381,025	1,118,587	.....
Maine	694,466	661,086	.....
Maryland	1,190,050	1,042,390	.....
Massachusetts	2,805,846	2,238,943	.....
Michigan	2,420,982	2,093,889	.....
Minnesota	1,751,394	1,301,826	1,768
Mississippi	1,551,270	1,289,600	.....
Missouri	3,106,665	2,679,184	.....
Montana	243,329	132,159	10,746
Nebraska	1,068,539	1,058,910	.....
Nevada	42,335	45,761	1,665
New Hampshire	411,588	376,530	.....
New Jersey	1,883,669	1,444,933	.....
New York	7,208,012	5,997,853	4,711
North Carolina	1,898,810	1,617,947	.....
North Dakota	319,146	182,719	4,692
Ohio	4,157,545	3,672,316	.....
Oregon	413,536	313,767	.....
Pennsylvania	6,302,115	5,258,014	.....
Rhode Island	428,550	345,506	.....
South Carolina	1,340,316	1,151,149	.....
South Dakota	401,570	328,808	10,932
Tennessee	2,020,616	1,767,518	.....
Texas	3,048,710	2,235,523	.....
Utah	276,749	207,905	1,472

a Including an estimated population of 14,000 for certain military organizations and naval vessels stationed abroad, principally in the Philippines, for which the returns have not yet been received.

States and Territories.	1900.	1890.	Indians not taxed, 1900.
STATES—continued.			
Vermont	343,641	332,422	.....
Virginia	1,854,184	1,655,980	.....
Washington	518,103	349,390	2,531
West Virginia	958,800	762,794	.....
Wisconsin	2,069,042	1,686,880	1,657
Wyoming	92,531	60,705	.....
Total for 45 States	74,610,523	62,116,811	44,617
TERRITORIES.			
Alaska	63,441	32,052	.....
Arizona	122,631	59,620	24,644
District of Columbia	278,718	230,392	.....
Hawaii	154,001	89,990	.....
Indian Territory	391,900	180,182	56,038
New Mexico	195,310	153,593	2,937
Oklahoma	398,245	61,834	5,927
Total	1,604,606	807,663	89,541
Persons in the service of the United States stationed abroad. Indians, etc., on Indian reservations, except Indian Terri- tory	a 89,670	.....	.....
		145,282	.....

a Including an estimated population of 14,400 for certain military organizations and naval vessels stationed abroad, principally in the Philippines, for which the returns have not yet been received.

REPORT

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OF THE

DIRECTOR OF THE TWELFTH CENSUS

TO THE

SECRETARY OF THE INTERIOR

FOR THE

FISCAL YEAR ENDED JUNE 30, 1901.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1901.

REPORT
OF THE
DIRECTOR OF THE TWELFTH CENSUS.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
Washington, D. C., November 1, 1901.

SIR: I have the honor to report as follows concerning the operations of this office from November 1, 1900, to the above date:

The work of tabulating the returns and results of the field work of the enumerators and special agents of the Twelfth Census has progressed with reasonable celerity. Much difficulty has been experienced, however, and more or less delay caused by the reduction of the clerical force, owing to the absence of employees from either illness or annual leave.

The law provides that the four principal reports shall be placed in the hands of the public by the 1st of July, 1902, and this requirement has rendered it absolutely necessary to maintain a clerical force adequate to complete the work within the prescribed period. The statisticians made estimates of the time needed to finish the particular branch assigned to each of them. The plans so submitted have been greatly interfered with owing to the absence of clerks from duty, as explained above. It was hoped by the 1st of November a large number of employees could be dispensed with; but inasmuch as the work has been retarded, owing to the difficulty of maintaining the clerical force at its maximum, it is not likely that there will be any material reduction until after the first of the year. The officials of the office believe that their allotted task will be completed in ample time.

It was hardly to be expected out of the large number of agents employed in the field work—about 55,000 in all—that there would not be some who would prove incompetent and unfaithful to duty. The Director has endeavored to enforce the census act to the letter, and through the assistance of the Attorney-General has proceeded against all offenders. Please find below a statement of the various prosecutions that have been conducted by this office.

MARYLAND.

St. Mary County.—Stephen A. Abell, Charles H. Guyther, Philip T. Graves, Daniel J. Bowles, enumerators, and Joseph H. Ching, attorney at law. The preliminary examination in the Geographer's Division showed that in this county these enumerators had made false

and fraudulent returns by placing on the schedules fictitious names—names of persons who had died prior to taking the census and the names of nonresidents.

All these men were arrested on warrants sworn out in Baltimore, and were brought before the Federal grand jury at that city, and nine indictments against them were returned on May 6, there being four indictments against each enumerator individually, and four against each enumerator and Ching jointly. The trial began May 27, but on May 25 Guyther appeared before the jury and pleaded guilty. Sentence was suspended, and he was called as a witness for the Government. Ching was convicted, on June 8, of conspiracy with Guyther, and was sentenced to two years' imprisonment and to pay a fine of \$1,000. An appeal was taken and the case is now before the United States court of appeals. Guyther was sentenced to one day in jail and to pay a fine of \$100. Abell, Bowles, and Graves were acquitted of the conspiracy charge, and the charge against Graves for making false and fictitious returns was withdrawn. Bowles pleaded guilty to making false returns, and was sentenced to sixty days in jail and to pay a fine of \$200. Abell was tried on June 24 on a charge of making false and fictitious returns. The jury failed to agree, and he will probably be tried again some time in November.

Charles County.—The examination of the schedules, made at the same time as in St. Mary County, showed the same condition of affairs, and the results of the investigation were laid before the grand jury in Baltimore, who rendered true bills against Henry Mattingly, an enumerator, who came to court on June 15, pleaded guilty, and was sentenced to one day in jail and to pay a fine of \$200.

Anne Arundel County.—An investigation was also made in this county, and evidence was presented to the grand jury who found true bills against William Frisbee Anderson and Fred H. Borneman for making false and fictitious returns. Anderson was convicted June 24, and sentenced to pay a fine of \$200. Borneman's case was continued until the fall term of the district court, and the trial will probably take place in November.

Baltimore County.—An examination of the schedules returned by Eli F. Wilhelm, in reporting the deaf, dumb, and blind, developed the fact that his returns, when tested by correspondence with individuals reported, were, in many instances, incorrect. The case was submitted to the United States attorney for the district of Maryland, who reported that, it being uncertain whether they could prove the charges against him, they advised that proceedings be not started.

PENNSYLVANIA.

D. Smith Talbot, supervisor of Second district.—Proceedings were started against Mr. Talbot for his failure to pay the interpreters who had assisted the enumerators in taking the census in his district, Mr. Talbot having rendered his account for their services and received the money from this office. After proceedings against him had been begun by the United States attorney at Philadelphia, the defendant made payment in full to all interpreters, except in those instances where the interpreters had departed from the district. The United States attorney was authorized by the Department of Justice on May 24 last to continue this case until the next term of court.

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NEW MEXICO.

City of Santa Fe, Pedro Sánchez, supervisor.—An investigation into the accounts of this supervisor showed that he had failed to pay interpreters employed by him during the enumeration, although the money had been remitted to him for that purpose from this office, and that he had also made false and fictitious returns of the amount of services rendered by some of the interpreters. Upon application to the Department of Justice, the United States attorney for the district of New Mexico was instructed to begin proceedings at once against Sánchez and his clerk, Sena. They were arrested, and information was presented to the grand jury, who found indictments against both Sánchez and his chief clerk, Sena, under the charge of having filed false and fraudulent vouchers. Two other indictments were secured against them, charging each of them with embezzlement and forgery. The United States attorney writes that it was not practicable to try these cases at the last term of court on account of want of time, but that they will come up for trial at the next term.

TENNESSEE.

Selmer, McNairy County.—Henry C. Gooch, an enumerator, was found, upon examination of the schedules, to have made false returns of the population. An examination by special agent was made and the fact established that he had placed on his schedules fictitious names—names of persons who had died prior to taking the census and the names of nonresidents. A warrant was sworn out for this man and he was arrested. He will probably be tried at the November term of court.

MISSISSIPPI.

Third supervisor's district.—Samuel W. Glidden, enumerator in E. D. 71; Paul W. Davidson, E. D. 74; William Knight, E. D. 76; Scott E. J. Watson, E. D. 85; Abraham L. Stringer, E. D. 87; William H. Toler, E. D. 92: An investigation of the agricultural schedules returned by these men, in comparison with the population schedules, showed that they had made false and fictitious returns of the number of farms in their districts. Proceedings were brought against them, they were arrested, and their cases were presented to the grand jury, which met at Vicksburg, and on July 3 rendered indictments for all six on charges as alleged. Their trials will come up at the next term of the court, which will be early in January.

ARIZONA.

Charles W. Pugh, special agent for the Agricultural Division of the Census Office, Phoenix.—An examination of this man's expense vouchers, rendered from time to time during the summer of 1900, led to the suspicion that he was having subvouchers signed in blank and filling them in afterwards for much larger amounts than he had actually expended, and that he had also put in fraudulent vouchers for bills he had never contracted. An investigation was begun by mail with parties whose names and addresses were signed on the subvouchers, which corroborated the impression that the office had as to his honesty. The

case was presented through the Department of Justice to the United States attorney, who arrested Mr. Pugh, and he was indicted by the grand jury and brought to trial at the July term of the court. The case was continued on a demurrer, which the court now has under advisement, and can not be reopened until the November term of court. Indictments against Pugh, of the same character, were also secured at Florence, Ariz. This case will probably come up after the case above referred to is decided. We have also evidence of fraud on Pugh's part, committed on a trip to California, but it was thought best not to take up the California case until after the Arizona cases were settled.

I submit herewith statements from the chief statisticians showing the condition of the work of their respective divisions at the present time:

POPULATION DIVISION.

W. C. HUNT, *Chief Statistician.*

I have the honor to transmit the following statement concerning the condition of the work of the Population Division to October 31, 1901, inclusive:

In the work of machine tabulation there have been counted to October 31, inclusive, 314,280,314 cards, representing very nearly 84 per cent of the entire number of cards to be handled. If this figure, representing the actual number of cards handled to date, is compared with the original estimate as to the number of cards necessary to be handled daily in order to complete the machine work by March 1, 1902, it appears that we are to date (October 31) more than 19,000,000 cards ahead of my estimate. It is apparent, therefore, from this statement, that the work of machine tabulation is likely to be completed easily within the time originally estimated, and that this work could be completed early in January, 1902, if the number of machines now in operation (about 140) could be utilized. Toward the close of the machine work, however, it will not be possible to use to advantage a large number of tabulating machines, and this will extend somewhat the period of machine tabulation, but certainly not, with even a small number of machines, beyond the estimated date of completion, namely, March 1, 1902.

The first four runs of the cards, for which are obtained the data contained in the tabular presentations to be included in part 1 of the Report on Population, and equivalent to the handling of 210,292,859 cards, are completed. The fifth, sixth, seventh, eighth, and ninth runs, from which are obtained the data contained in the tabular presentations to be included in part 2 of the Report on Population, represent the handling of 165,103,387 cards, of which 103,987,455 have been counted to date, including all of the fifth run, from which are derived the data relating to ages (in detail), conjugal condition, school attendance, illiteracy, and inability to speak English. There remain, therefore, 61,115,932 cards to be counted, subdivided by runs as follows:

	Total cards.	To be counted Oct. 31, 1901.
Fifth run	76,303,387	
Sixth run	180,100,000	8,794,287
Seventh run	27,700,000	22,351,165
Eighth run	15,500,000	14,507,396
Ninth run	15,500,000	15,463,084
Total.....	165,103,387	61,115,932

¹Including the second handling of approximately 2,400,000 cards.

This statement shows that for the sixth and seventh runs, from which are derived the data relating to occupations, there has been counted to October 31, 46 per cent, and for the eighth and ninth runs, from which are derived the data relating to dwellings and families and the ownership of homes, 3 per cent; this part of the machine tabulation having only recently been commenced.

Of the estimated number of cards (27,700,000) representing persons with gainful occupations to be handled on the sixth and seventh runs there were originally punched, approximately, 21,300,000 cards, leaving 6,400,000 cards to be rejected by the machines and subsequently classified, this number of cards representing occupations that were not classified when the cards were originally punched. Of the

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6,400,000 cards, there have been classified to date 3,852,024, or 60 per cent. The average number of cards classified daily during the month of October was 36,764, and on this basis there is no reason why this classification work should not be completed during the month of January, 1902.

Of the estimated number of family cards (15,500,000) to be handled on the eighth and ninth runs there have been punched to date 6,458,914, or 42 per cent. During the month of October the average number of cards punched daily was 114,917. Since the 1st of September the force engaged in punching the family cards has been increased from less than 100 to a maximum force of 233, the latter number representing the whole number of seats at present available for the work of keyboard punching. This number of machines is kept in operation daily, and with the present daily output it is safe to assume that the work of punching the family cards will be completed by the close of January, 1902.

The present condition of the tabular matter (general tables) for part 1 of the report on population is briefly summarized as follows:

Part 1.

Subjects.	Printed.	Plated.	In type.	In copy.	To be supplied.	Total pages.
Aggregate population	480	-----	-----	-----	-----	480
Sex, general nativity, and color	81	49	74	-----	-----	204
State or Territory of birth	-----	-----	-----	46	-----	46
Country of birth	-----	-----	-----	74	-----	74
Foreign parentage	-----	-----	-----	21	81	102
Citizenship and years in the United States	-----	-----	44	50	6	100
Total	561	49	118	191	87	1,006

From this summary it appears that practically 91 per cent of the tabular matter comprising part 1 is in process of printing, 561 pages, or 56 per cent, being already printed, 49 pages, or 5 per cent, plated, and 309 pages, or 30 per cent, either in type or in copy. The 87 pages not yet supplied to the printer comprehend the data relating to foreign parentage, derived from the fourth run of the cards, which has only recently been completed, but the copy resulting therefrom will be made in time to follow the completion of the matter already in process of printing.

The textual matter to accompany the general tables, representing approximately 200 pages of print, is also in process of preparation, and will be supplied to the printer at an early day. Much of the analytical text has already been prepared and used in the several bulletins which have been issued to date, and only needs to be amplified in certain cases for use in the final report.

Of the 1,014 pages of tabular matter to be included in part 2 of the report on population, 100 pages, relating to "school, militia, and voting ages," and derived from the first run of the cards, are already in type or in copy. Of the remaining 914 pages, 414 pages comprehend tables relating to ages, conjugal condition, school attendance, illiteracy, and inability to speak English, 354 those relating to occupations, and 146 those relating to dwellings and families and the ownership of homes. The tables representing the 414 pages first mentioned are derived from the fifth run of the cards, which, as I have already stated, is entirely completed.

The work of compiling the results derived from the fifth run will be taken in hand immediately following the completion of the work compiling the results relating to foreign parentage, etc., derived from the fourth run, and this work will be followed in turn by that relating to occupations and the family data, in order that upon the completion of the copy needed for part 1 the printer may be supplied with copy for part 2 in the order, as nearly as possible, of the several subjects, as follows:

Part 2.

Subjects.	Number of pages.	Subjects.	Number of pages.
Ages	150	Dwellings and families	56
School, militia, and voting ages	100	Ownership of homes	90
Conjugal condition	96		
School attendance	62	Total	1,014
Illiteracy	75	Textual matter (estimated)	186
Can not speak English	28		
Occupations	354	Aggregate	1,200

¹ In type or copy, as previously stated.

The present condition of my work, as herein outlined, shows that there is every prospect for completing the work relating to part 1 at a comparatively early date, in order that that portion of the report may be issued during the month of December, if possible, and that copy for part 2 can be supplied to the printer from time to time thereafter, so that the last batch of copy may be transmitted not later than April 15, 1902, according to my estimate made under date of February 2, 1900. It is not possible to state positively that this will be the case, but I see no reason now why I should not conform substantially to the statements made in my original estimate.]

DIVISION OF MANUFACTURES.

S. N. D. NORTH, *Chief Statistician.*

The work of the division of manufactures is rapidly drawing to completion under circumstances which apparently render it possible to comply with the provision of the census act which requires the main results of the manufacturing census to be completed and published prior to July 1, 1902.

In order to insure this result it has been necessary to increase the force of the division temporarily to 412 clerks; and the work has been greatly expedited by the substitution of mechanical appliances. The entire tabulation of general schedule No. 3 has been done upon tabulating typewriter machines, this being the first use of this machine in census work. By making a carbon copy of the tabulation sheets the amount of clerical labor in handling the returns has been enormously reduced, and the completion of the work within the time limit set by Congress would not have been possible without the aid of these machines except by a large increase in the clerical force. Some forty adding machines of the latest improved pattern have also been utilized in the division in obtaining results from the tabulation sheets. Actual experience has demonstrated that one clerk with an adding machine can turn out at least four times the amount of work in addition that can be achieved by a clerk adding mentally. There has been in addition a much higher average of general accuracy than is attainable by the mental process.

The several stages of the work of the division of manufactures already completed are those of classification, which was finished on February 9; revision, which was finished on September 26; tabulation of general schedule No. 3, which was finished on October 7; tabulation of special schedules by hand, which was finished on October 14. The force of the division is now very largely concentrated upon the work of addition and summarization, and this work is now progressing with a steady swing, as the clerks become more expert through experience, which indicates that it will be finally completed about the 1st of March, 1902. From the summarization the work passes to the section of final results, which is now so organized that it can prepare the figures for the printer practically as fast they are received. Barring unforeseen contingencies, therefore, it seems probable that the entire material for Part II of the manufacturing statistics—a volume of approximately 1,200 pages—will be ready for the printer on about March 15. This volume will contain the manufacturing statistics by States, and will also include, in connection with each State, the statistics of the several cities in that State. At the present writing the work has been completed and published in bulletin form for the States of Arkansas, Arizona, Colorado, Connecticut, Delaware, Florida, Idaho, Indian Territory, Iowa, Kansas, Louisiana, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Oklahoma Territory, Oregon, Rhode Island, South Dakota, Utah, Vermont, and Wyoming. The States completed and shortly to be sent to the printer are Alabama, California, Georgia, Illinois, Kentucky, Maryland, Michigan, and the Hawaiian Islands. These States represent 30.5 per cent of the total product of manufacturing and mechanical industries as reported at the Eleventh Census.

Simultaneously with the work upon the statistics of the States, the preparation of the statistics of the United States totals by States and by industries, which will constitute the major portion of Part I of the manufacturing volumes, has been progressing, and it will be possible to place the entire copy for Part I—also comprising about 1,200 pages—in the hands of the printer within a month or six weeks from the date when copy is completed for Part II.

Simultaneously, also, work has been progressing upon the reports for selected industries, which will comprise Part III of the manufacturing volumes. Census bulletins have already been printed or are in type for the following industries: Coke manufacturing, petroleum refining, salt, paper and pulp mills, copper, lead, and zinc smelting and refining; gas, railroad repair shops, and the tar and turpentine industry. The final results in the following selected industries are now in the hands of expert special agents, who are engaged in the preparation of the text for their reports,

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which it will be possible to publish during the winter months: Brick and pottery products, dyeing and finishing of textiles, silk manufacture, flax, hemp, and jute manufacture; leather, tanned and carried; boots and shoes; glass; iron and steel—tin plate works, blast furnaces, and rolling mills; shipbuilding—steel and iron vessels and wooden vessels.

REPORT ON COTTON GINNING.

During the current year the division of manufactures has prepared and published two bulletins showing the cotton crops grown in the years 1899 and 1900, as returned to the Census Office by the cotton ginners.

The statistics of the crop of 1899 were gathered largely by the enumerators under instructions to secure a return from every cotton ginnery operated for the crop mentioned. By the canvass of the enumerators a complete mailing list of the ginneries of the country was compiled, but it was problematical whether the office could obtain similar reports through the mails. The results of the canvass by mail, as shown by the second cotton bulletin, demonstrated this method to be entirely feasible. Every ginning establishment in the United States was heard from, either directly or indirectly. Wherever there was failure on the part of the ginners to respond to the inquiries of the Census Office, the cooperation of the local postmasters was secured through the courtesy of Postmaster-General Smith, and thus the product of every ginnery obtained, or the fact ascertained that it had not been in operation for the crop of 1900.

The second report, like the first, is therefore believed to present complete statistics of the cotton crop and give the same with a detail and accuracy not possible under other methods, having to depend upon reports of transportation lines and port receipts.

This office has secured from cotton producers, cotton exchanges, cotton factors, and cotton manufacturers an overwhelming approval of the services rendered by these reports. I am, therefore, led to recommend that Congress pass a joint resolution authorizing and instructing the Census Office to make a similar canvass of the cotton ginneries annually. Under its present organized system of machinery this office will be able to publish this cotton report as early as the month of May or June in each year, or three to four months in advance of their possible publication through other agencies. The commercial advantages resulting from these earlier, more accurate, and detail statistics as to the volume of the annual cotton crop are too obvious to be further dwelt upon.

DIVISION OF AGRICULTURE.

L. G. POWERS, *Chief Statistician.*

I herewith submit a detailed report of the state of the work in the agricultural division of the Twelfth Census, and the prospect of completing the same within the time called for by the act of Congress. The work of the division naturally divides itself into a number of distinct branches concerning each of which I will make specific mention.

After the preliminary work incidental to the sending out of the schedules and receiving the same and settling the accounts of the enumerators, the first important work of the division has been the revision of schedules. This includes the examination of the same for the detection and correction of errors and omissions by the enumerators. It involves the sending out of over a million letters to the farmers and enumerators and the entry upon the schedules of the information received in return. This work has been divided into four different branches, known in the office as the first, second, third, and fourth revisions. There are about 5,725,000 farm schedules, and all have to pass through each of these four revisions. The amount of labor expended on such revisions up to and including October 15, 1901, was 820,895 hours, or the equivalent of the work of one clerk for 117,271 days. At that time the first and second revisions had been finished, and of the 5,725,000 schedules all but 50,000 had passed through the third revision, and all but 210,000 through the fourth or final revision.

The labor required to complete the third revision was equal to that of one clerk for 300 days; that needed for the fourth revision, the work of one clerk for 1,425 days. Of the work required to revise the schedules 98.5 per cent had, therefore, been performed October 15. With the present force the third revision will be completed about November 1, and the fourth revision shortly thereafter.

By the method adopted in the division, after the schedules have been revised the facts contained thereon are transferred to cards by punching machines preparatory to their addition on the Hollerith tabulating machines.

There are to be punched 5,725,000 farm cards, or one for each schedule, and not

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far from 120,000,000 crop and animal cards, or a little more than 20 for each schedule. Of these there were punched, October 15, a total of 5,047,510 farm cards and 100,007,871 crop and animal cards. There remained to be punched 677,500 farm cards and 20,000,000 crop cards, or about 12 per cent of the former and 17 per cent of the latter. There had been expended in punching and gang punching, and in the necessary supervision, a total of 602,917 hours of work, or the equivalent of the services of 86,131 clerks for one day. The work remaining to be done represents the labor of 17,000 clerks for one day, and with the present force will be completed in about 35 working days, or not far from the 1st of December.

After the cards have been punched and gang punched they are sorted and arranged in order for the tabulating machines through which they are run and the figures upon them automatically added. By the method at present in use the 5,725,000 farm cards are run through the machines three times, making the equivalent of tabulating 17,175,000 cards once. Of this work there had been completed October 15 the following amount:

Tabulated for the first time	4,918,330
Tabulated for the second time	1,458,161
Tabulated for the third time	872,050
Total	7,248,541

There remained the equivalent of 10,900,000 cards to be tabulated once.

Of the 120,000,000 crop and animal cards those reporting live stock are passed through the tabulating machines three times; those reporting cereals, cotton, and other leading crops twice, and the others only once. The exact number of cards in each of these subdivisions can not as yet be estimated exactly. The work of tabulating the crop and animal cards will, however, probably be the equivalent of tabulating 220,000,000 cards once. Of that work the following portion has been performed October 15:

Cards tabulated once	85,617,194
Cards tabulated twice	5,956,717
Cards tabulated three times	1,174,409
Total	92,748,320

The unfinished work of the tabulation, therefore, probably equals that of tabulating 128,000,000 cards once.

From the foregoing it can be seen that October 15 there had been completed 42 per cent of the work of tabulating the farm cards and that of tabulating the crop and animal cards.

The work expended prior to October 15 in operating the tabulating machines, sorting the cards, and other work incidental to tabulation by the Hollerith system has been 267,849 hours, or the equivalent of the labor of 36,835 clerks for one day. At the present rate of work the tabulation of the farm cards will be completed shortly before February 1, 1902. With the machines in use and that will be in operation by October 20, the average rate of tabulating the crop and animal cards will be 1,100,000 per day. This will permit the completion of the tabulation in 117 working days from October 15. By working a small force at night after the completion of the work of card punching it is expected to shorten the time of tabulation to 100 days and close the same not far from February 10.

The results of the additions made by the tabulating machines are transferred to result slips that are sent to the sections of final results, and there critically examined. The same sections take measures for detecting all errors, and place the figures in tables for the final report. The amount of labor performed upon this branch of work October 15 was 154,234 hours, or the equivalent of the work of 22,033 clerks for one day. This is about 40 per cent of the total amount of labor in the sections of final results. As the work is arranged the last table will be finished and ready for the printer about ten days after the completion of the work on the tabulating machines.

The tables of the two volumes of the final report will cover about 1,057 pages, of which 712 are tables by counties and 345 tables by States and Territories. A portion of each of the latter class of tables is completed when the corresponding county table is finished. The work upon the two classes of tables goes forward with equal speed, and the State tables are completed at substantially the same time as the county tables. The county tables are prepared in their first form shortly after the tabulation of the data for the same on the first run of cards. They are, however, held for revision until the completion of the final run for the State of which they form a part. The completion of the county tables, therefore, measures the rapidity with which the tabular work of the report progresses.

There had been completed and made ready for the printer, October 15, 100 of the

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712 pages of county tables. A much larger number of pages were finished but awaited verification from the second and third runs of cards. It is expected that prior to the close of the week ending October 26 there will be 126 pages of the county tables ready for the printer. During the month ending November 30 there will be completed 100 pages; during the month ending December 28, 99 pages; during the month ending January 25, 155 pages; and during the five weeks ending March 1, 202 pages. On this latter date all county and State tables will be finished. If the tabulation is completed by February 10, as stated above, the date for preparing the county and State tables for publication will be about February 15, instead of March 1, as stated above.

In addition to the work embodied in the tabular matter referred to above, the division is carrying on an investigation relating to irrigation. This will be embodied in a report of some 250 pages. It will be prepared and copy sent to the printer from time to time between January 1 and March 1, at which date the last copy relating to the subject will be finished.

In the foregoing exhibit I have given no statement of the amount of labor expended in the general work of the division, nor of the amount of labor expended in a number of minor and incidental investigations. These in the past have made up quite a large aggregate, but, with the exception of the general work of supervision and direction, will be small in the future. I omit detailed mention of them for the reason that a statement thereof is not necessary for the proper presentation of the present state of the work and the plans for completing the same in the time called for by the act of Congress.

After the completion of the tables, which it is expected will take place not far from the 1st of March or a little before, the only work of the division remaining will be writing the introduction to the two volumes. Work upon that introduction is being performed at the present time, and it is expected that all the materials will be collected by the 1st of March and in a form that will require less than a month to put them in shape for the printer. This will close the work of the division with reference to the census of agriculture. As the printer can readily print and bind the volumes after April 1 prior to July 1 it can be seen that there is every reason to expect so to close the work of the division as to comply with the act of Congress establishing the Census Office.

DIVISION OF VITAL STATISTICS.

W. A. KING, *Chief Statistician.*

I have the honor to submit the following report of the work of the Division of Vital Statistics since my last annual report (October 16, 1900):

At the date of the last report we had not quite completed the collection of the data. The number of deaths reported by the enumerators was 686,615. In addition to these, transcripts of registration records aggregating 628,813 deaths were secured. In order to determine the accuracy of registration and to make the returns as complete as possible, both enumeration and registration returns were secured for the greater part of the registration area, and the two were thoroughly and systematically compared.

The comparisons made resulted in the addition of some 60,936 deaths to the registration records, and the further completion of the same by supplying 63,249 items of omitted information.

The total number of deaths secured from both sources was 1,039,094. This is exclusive of stillbirths. The corresponding figures in 1890 were 841,419, the increase being 197,675, or 23.5 per cent. It is gratifying to state that the returns are much more complete than at the last census. The registration data are also much more uniform, and therefore more valuable, on account of the preliminary work of this office in securing modifications and improvements in the forms of certificates used, so as to supply the essential details required for the census compilations.

The registration area was extended by the inclusion of Maine and Michigan and 96 additional cities of 8,000 or more population in nonregistration States. It now embraces 10 entire States (including the District of Columbia) and 153 cities in other States, and comprehends a population of 28,807,269, or about 38 per cent of the entire population of the United States.

During the year the schedules were all carefully edited to adapt the statement of facts to the mechanical system of tabulation employed, and the data transferred to cards to be counted by the tabulating machines.

Five runs of the cards have been completed, furnishing the data for tables showing deaths by sex and age in relation to color, general nativity, parent nativity; to cause of death; to conjugal condition, and to time (months) in various combinations. The remaining counts involve only part of the cards (such as those having stated occupations, etc.), and provision has been made to execute them expeditiously.

A bulletin of 63 pages was prepared and published on August 20, 1901, giving the preliminary results for States and cities, with an analysis of the registration figures as far as the data available at that time would permit.

Copy for the final report, covering the first eight tables, and estimated to make about 680 pages of printed matter, has been forwarded to the printer.

Additional copy representing about 400 pages of printed matter has been completed, but it is not in the consecutive order of the tables, and is held pending the completion of the intermediate matter.

The work of this division has been performed well within the estimates of time, clerical force, and cost. There is no question that the work, so far as it is not dependent upon population data, at least, will be completed before the time limit fixed by Congress.

At the last annual meeting of the National Conference of Charities and Correction the question of the possibility of the creation of a national bureau of charities and correction was discussed.

From the expressions of the conference as a whole and of its individual members, there is evidently a strong desire on the part of those who can appreciate the importance of such work to have it done under the direction of the National Government. In order that the information gathered should be of permanent value, it must be collected by means of uniform blanks and methods throughout the whole country. This can be done only through the agency of a national bureau, such as the Census Bureau. At present such information is gathered by the different States, but their methods are so varied that the results can not be safely used for purposes of comparison.

The most important things that could be done by the Bureau are as follows: To prepare and publish annually, or at other stated intervals—

1. A list of all the public and private charitable, correctional, and kindred institutions, societies, and associations in the United States.

2. Statistics showing the value of property, receipts and expenditures, and work of such institutions and societies.

3. Statistics showing the movements of the population in the institutions.

4. Judicial statistics showing the number of arrests, convictions, and other dispositions made of the arrested; also the number of times that individual criminals have been convicted.

Statistics of prisons are not sufficient. The lengths of the sentences vary so in different States that a list of the number of prisoners at any given moment in any State is not an accurate measure of the volume of crime in that State. Statistics from coroners are also valuable for the study of suicide.

The present census law may give sufficient power to the Director to do nearly all that is necessary. His power, however, seems to be limited to institutions, and might not be held to cover statistics of associations, the results of whose work are necessary to a complete view of the situation. Neither does the law seem to authorize the payment to institutions, societies, or courts for such information and transcripts of records as may be most economically obtained by this means. If necessary, it would seem that the law should be amended so as to leave no doubt on these subjects.

I hand you herewith an estimate of the appropriations required for census purposes for the fiscal year ending June 30, 1902. Also statement from the disbursing officer showing expenditures during the past fiscal year.

Respectfully, yours,

W. R. MERRIAM, *Director*.

The SECRETARY OF THE INTERIOR.

APPENDIX.

EXHIBIT A.

Cost of the Twelfth Census by divisions, from November 1, 1900, to October 31, 1901, both dates inclusive.

Administration:

Salaries	\$207,797.27
Rent	38,603.84
Office fixtures and furniture	4,168.80
Printing machinery and fixtures	4,697.46
Stationery	28,305.87

Printing (not otherwise charged):

Salaries and wages	\$47,641.43
Public Printer	7,702.79
Interior Department	1,481.74
Miscellaneous	2,638.75
	<u>59,464.71</u>

Miscellaneous:

Examinations, material for repairs, etc., electrical equipment, light, heat, ice, stable, telephones, telegrams, advertising, travel (other than supervisors and special agents), and office supplies	15,962.32
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	<u>\$369,000.27</u>
Supervisors	64,912.86
Enumerators	46,465.31
Population	1,189,981.23
Vital statistics	76,825.85
Manufactures	482,542.45
Agriculture	1,212,182.67
Methods and results	28,765.09
Alaska:	
Disbursed at Washington	186.00
Disbursed by S. C. Dunham	
Disbursed by A. F. Wines	
Disbursed by W. A. Kelly	
	<u>186.00</u>
Hawaiian Islands	1,239.90
Blind and deaf	26,629.66

Disbursements as per "Statement of the condition of the appropriation for the expenses of the Twelfth Census"	3,498,731.26
Add settlements by Interior Department	6,228.23
Total	<u>3,504,959.49</u>

EXHIBIT B.

Estimate of appropriations required for the expenses of the twelfth census for the fiscal year beginning July 1, 1902, and ending June 30, 1903, in accordance with the act of March 3, 1899, and amendments thereto.

1. Director of the Census	\$7,500
One assistant director	4,000
Five chief statisticians, at \$3,000 each	15,000
One chief clerk	2,800
One disbursing clerk	2,500
One purchasing agent	2,500

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One superintendent of printing	\$2,500
One geographer	2,500
One appointment clerk	2,500
Seven expert chiefs of divisions; at \$2,000 each	14,000
Two stenographers, at \$2,000 each	4,000
Fifteen clerks of class 4	27,000
Twenty-one clerks of class 3	33,600
Twenty-eight clerks of class 2	39,200
One captain of the watch	840
Two messengers	1,680

Total	162,120
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2. Clerks, copyists, computers, skilled laborers, watchmen, assistant messengers, laborers, messenger boys, and charwomen, 1,200 at \$1,000 per annum	1,200,000
3. Special agents to secure information for special reports	100,000
4. Rental of quarters	30,000
5. Stationery	25,000
6. Furniture, carpets, ice, lumber, hardware, dry goods, advertising, telegraphing, expressage, horses, wagons, harness, food for and shoeing of horses, diagrams, awnings, shelving, file cases, file holders, repair of cases and furniture, fire, lights, and all other expenses for miscellaneous supplies	50,000
7. For the purchase of law books, books of reference and periodicals, manuscript, investigation of census work in other countries, etc., to be made a specific item in appropriation bill	5,000
8. For use of machines of the Hollerith Tabulating Machine Company, including cards	50,000
9. Printing and binding census reports	350,000

TOTALS.

Item No. 1	162,120
Item No. 2	1,200,000
Item No. 3	100,000
Item No. 4	30,000
Item No. 5	25,000
Item No. 6	50,000
Item No. 7	5,000
Item No. 8	50,000
Item No. 9	350,000

Total	1,972,120
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TO THE

SECRETARY OF THE INTERIOR.

1902.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.

1902.

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REPORT

OF THE

DIRECTOR OF THE CENSUS.

CENSUS OFFICE,
Washington, D. C., November 1, 1902.

SIR: I have the honor to submit the following report concerning the operation of the Census Office for the year ending November 1, 1902:

The law establishing a permanent Census Office became effective July 1, 1902, and therefore the period covered by this report includes eight months of operation as a temporary office, and four months of operation as a permanent office.

The force of the temporary office was employed in tabulating and publishing the data collected by the enumerators for the Twelfth Census. This work was practically completed on July 1, and the results were presented to the public in ten quarto volumes comprising the reports on population, vital statistics, agriculture, and manufactures. At the time of writing over 70,000 copies of these reports have been distributed. The speedy completion of so great a task is especially noteworthy, as the period elapsing between enumeration and the publication of all the reports of the Twelfth Census is shorter than the like period required for any census since the Seventh, that of 1840, for which about the same length of time was required. The returns for the Seventh Census were comprised in 840 pages, those for the Twelfth Census in more than 10,000 pages.

Two factors have made it possible to complete the work within the limits prescribed by the law—the liberal provisions of the act of Congress which gave the Director wide discretion in the organization and conduct of the office, and the skill, perseverance, and enthusiasm of those immediately in charge of the work. It is likely, however, that the achievement of the Census Office in thus reducing the time between enumeration and publication can be carried still further in the future. A large number of experts have been retained in the permanent office, and with their services available, and the proper advance preparation, it is possible that the period between enumeration and the publication of the results of the Thirteenth Census can be reduced to eighteen months.

FIELD WORK, OFFICE AND CLERICAL WORK.

The United States was divided into 52,872 enumeration districts and 300 supervisors' districts. There were received at the Census Office

slightly in excess of 900,000 schedules for population; 500,000 schedules for vital statistics; 5,738,524 schedules for agriculture; and 608,401 schedules for manufactures.

The maximum number of persons employed in connection with the work of the Twelfth Census was 59,373, composed of 3,554 persons in the Census Office at Washington, 2,648 special agents in the field, 300 supervisors, and 52,871 enumerators.

MECHANICAL TABULATION.

Of cards for the electric tabulators, approximately 215,000,000 were used. A maximum of 1,642 punches, 311 electric tabulating machines, and 74 adding machines were required in the work. The number of percentages worked is estimated to have exceeded 2,000,000.

CENSUS PUBLICATIONS.

The total number of different bulletins issued by the Census Office was 250, representing in all 3,910,000 bulletins. One monograph on population, consisting of 15,000 copies, and ten volumes of census reports, aggregating 104,000 copies, were issued. These volumes were divided as follows:

Population, 2 volumes, Volume I being devoted to population by States and Territories, counties, minor civil divisions, cities, towns and villages, sex, color, etc.; Volume II being devoted to school attendance, conjugal condition, illiteracy, occupations, dwellings and families, proprietorship of homes, etc.

Volumes III and IV were devoted to vital statistics, Volume III presenting analysis and ratio tables, and Volume IV presenting statistics of deaths.

Volumes V and VI included agriculture, Volume V being devoted to farms, live stock, etc., and Volume VI to crops and irrigation.

Volumes VII, VIII, IX, and X related to manufactures, Volume VII presenting the United States by industries, Volume VIII, States and Territories, Volumes IX and X, special reports on selected industries.

The principal difficulty which has attended the enumeration of the people, and the collection of the additional data which the enumerator is required to obtain, has been the inability of the Census Office to employ in all cases satisfactory enumerators. It is impossible to secure the most efficient service when only a brief period of employment can be offered. The work of the supervisors of the different districts was much hampered in consequence of this, and many of the schedules after reaching the Census Office required careful examination in advance of tabulation. This involved much additional expense.

I shall submit to you later for the consideration of Congress, should it meet with your approval, a more effective plan for securing the original information upon which rests the whole structure of statistical work at each census. In the supervision of the field work, relating both to enumerators and to special agents, there is also opportunity for improvement. Before the task of taking the Thirteenth Census begins, a thorough investigation will be made into this branch of census work in order to improve upon the present plan.

REPORT OF THE DIRECTOR OF THE CENSUS.

THE PERMANENT CENSUS OFFICE.

On the 1st of July of the present year the permanent Census Office was organized in accordance with the Act approved March 6, 1902, and the following employees were appointed by me and approved by the Secretary of the Interior:

Chief clerk, Edward McCauley.
 Chief statistician for population, William C. Hunt.
 Chief statistician for manufactures, S. N. D. North.
 Chief statistician for agriculture, L. G. Powers.
 Chief statistician for vital statistics, William A. King.
 Disbursing clerk, John W. Langley.

Expert chiefs of division.....	4	Skilled laborers.....	12
Clerks, class 3.....	6	Watchmen.....	10
Stenographer.....	1	Messengers.....	6
Clerks, class 2.....	10	Assistant messengers.....	15
Clerks, class 1.....	272	Unskilled laborers.....	16
Clerks, \$1,000.....	235	Charwomen.....	45
Clerks, \$900.....	260		

As soon as practicable after the organization of the permanent Census Office, the work of collecting the statistics for the special reports authorized by section 7 of the Act of March 6, was apportioned among the four chief statisticians, to be taken up from time to time as circumstances will permit. These reports include the following subjects:

* * * statistics relating to special classes, including the insane, feeble-minded, deaf, dumb, and blind; to crime, pauperism, and benevolence, including prisoners, paupers, juvenile delinquents, and inmates of benevolent and reformatory institutions; to social statistics of cities, to public indebtedness, valuation, taxation, and expenditures; to religious bodies; to electric light and power, telephone and telegraph business; to transportation by water, express business and street railways; to mines, mining, quarries and minerals, and the production and value thereof, including gold in divisions of placer and vein, and silver mines, and the number of men employed, the average daily wage, average working time, and aggregate earnings in the various branches and aforesaid divisions of the mining and quarrying industries.

The office has already begun the collection of the data required for the reports on the deaf, dumb, and blind; on wealth, debt, and taxation; on mines and mining; on transportation by water and express business, and on social statistics of cities. Some of this information will be obtained by schedules and letters of inquiry sent out through the post office, but much of it requires a certain amount of field work.

In connection with social statistics an inquiry relative to the number of "children, and children living," will be taken up with a view to ascertaining the relative fecundity of different nationalities. The office will also during the coming year collect statistics of births and deaths in registration areas as required by section 8 of the Act just cited, and data on irrigation for the crop year 1902, as called for by the joint resolution of Congress approved June 30, 1902.

COTTON GINNING INQUIRY.

Section 9 of the Act of March 6 provides that the Director of the Census shall annually collect the statistics of the cotton production of the country as returned by the ginners; and bulletins giving the results of the same shall be issued weekly, beginning September 1 of each year, and continuing until February 1 following.

After careful investigation it was not found practicable to organize the cotton-ginning inquiry in such a way as to give the amount of

cotton ginned as frequently as the law contemplated, as many of the ginneries are so remote from railroads, and in some instances from the post offices, that the chief statistician for manufactures, in charge of this work, decided to perfect an organization that would result at the outset in giving at least three, and possibly four, reports from September until February, with a view to increasing the number of reports as often as circumstances would allow. In the prosecution of this work 624 special agents, practically one to each cotton-growing county, were appointed to visit 28,974 ginneries, which handle nine hundred and ninety-four one-thousandths of the entire cotton crop. There are 217 additional ginneries scattered in outlying counties, which are covered by correspondence direct from the Census Office. The appointment of the special agents above mentioned entails an expenditure of \$49,754—practically \$50,000—this representing the sum required to make three reports of the cotton crop for 1902. If, as is hoped, the number of reports is increased to four during the next year, the expense would amount to about \$75,000.

The large number of special agents necessary to secure this information, as well as the agents required in connection with other special inquiries, will considerably increase the work of the disbursing office, because of the large number of accounts involved, many of which are complicated, requiring careful scrutiny before payment.

Below is given the number of agents for each State:

Alabama.....	64	Oklahoma.....	7
Arkansas.....	67	South Carolina.....	40
Florida.....	11	Tennessee.....	22
Georgia.....	116	Texas.....	121
Louisiana.....	39	Virginia.....	5
Mississippi.....	70	Missouri.....	1
North Carolina.....	57	Indian Territory.....	4

When the work of collecting the cotton statistics is thoroughly organized, and those in charge properly instructed in their duties, it is believed that very satisfactory results will be obtained.

PROSECUTIONS.

In my report for the fiscal year ending June 30, 1901, mention was made of the various prosecutions of supervisors, enumerators, special agents and others, for offenses committed against the law. I give below a statement showing the present condition of those cases.

MARYLAND.

St. Mary's County.—Stephen A. Abell, enumerator, and Joseph H. Ching, attorney at law.

The United States attorney at Baltimore reports that all cases in this county have been disposed of, except those against Joseph H. Ching and Stephen A. Abell. The Ching case was argued at the February term of the court of appeals, but was not decided. In the Abell case the jury disagreed, and the United States attorney is awaiting the decision in the Ching case before trying the Abell case again.

In all the other census cases in this State, the United States district attorney makes the report that they have been closed.

REPORT OF THE DIRECTOR OF THE CENSUS.

PENNSYLVANIA.

D. Smith Talbot, supervisor of second district.—In this case proceedings were begun against Talbot, but upon the payment by him of all his interpreters in full, and upon agreement with the Attorney-General's Office, the case was discontinued.

NEW MEXICO.

Pedro Sanchez, supervisor of the district of New Mexico, and Mariano F. Sena, his clerk.—The United States attorney for the district of New Mexico reports that the case against Sena was tried at the last term of the United States court, September, 1902, and after lasting eight days, resulted in the conviction of Sena. Motion for a new trial, and in arrest of judgment, was made and argued on September 16 and 17, and was overruled. The defendant was thereupon given sentence aggregating four years and four days in the United States penitentiary at Santa Fe. The defendant gave notice of appeal to the Supreme Court and was released in \$5,000 bail.

The case against Pedro Sanchez, the supervisor, was not tried at this term. The members of the jury had become so well acquainted with the facts at the trial of Sena, that they would have been disqualified to try the case against Sanchez, and it was impracticable to continue the term of court and issue a special venire.

TENNESSEE.

Selmer, McNairy County.—Henry C. Gooch, enumerator for the eighth enumeration district of the eighth supervisor's district.

Henry C. Gooch, indicted for making false returns, was placed on trial at the November term of the district court at Jackson, Tenn., plead guilty, was sentenced to twelve months in jail, and fined the sum of \$200 and costs, \$200, both of which amounts were paid.

After the conviction of Gooch, the office received information which indicated that the supervisor in that district (Eighth Tennessee), D. A. McDougal, in conjunction with one John W. Robinson, had conspired with Gooch in the making of these fictitious returns. Complaint was, therefore, made against them, and they were indicted, but upon being brought to trial were acquitted.

MISSISSIPPI.

Third supervisor's district.—Samuel W. Glidden, Paul W. Davidson, William Knight, Scott E. J. Watson, Abraham L. Stringer, and William H. Toler, enumerators in various enumeration districts in the above-mentioned supervisor's district. All these enumerators were indicted on July 3, 1901. Owing to the indisposition of the judge, the cases were continued until the January term. Before they were brought to trial, the United States attorney for that district, A. M. Lea, died, and it was not deemed expedient to try the cases, as he had had special charge of them. It has not been practicable to have them tried since then, but a recent report from the present attorney for the southern district of Mississippi states that the cases are now ready, and will be tried at the term of the United States district court, commencing October 20, proximo.

REPORT OF THE DIRECTOR OF THE CENSUS.

ARIZONA.

Charles W. Pugh, special agent for the division of agriculture of the Census Office, Phoenix.—The case against Charles W. Pugh, indicted for making out fraudulent vouchers, and for swearing to false expense accounts, came up on a new trial at the spring term of the United States court for the second judicial district of Arizona, and resulted in his conviction and sentence to hard labor for two years in the penitentiary at Yuma, Arizona.

CLERICAL FORCE.

The Census Office dispensed with the services of a large number of clerks on June 30. It was unavoidable, however, that some clerks not to be permanently retained should be carried into the reorganization of the office following June 30, as the final verification, handling of hundreds of pages of proof, and shipments of tons of bound reports, as well as the great amount of detail incident to the close of such an enormous undertaking, made impossible an abrupt transition from temporary to permanent organization. With the completion of most of the work of this character a reduction of the clerical force was made on September 30. As the work of the various divisions of the Census Office in connection with the remaining inquiries takes shape it is likely that economical organization will permit reductions of the clerical force below the estimate upon which the permanent organization of July 1 was based.

COST OF THE TWELFTH CENSUS.

The cost of the temporary work of the Twelfth Census, as shown by the attached statement, was \$11,854,817.91, or an average cost per capita of the population of the United States of 15.5 cents. The total cost of field work in connection with the work of the Twelfth Census was \$4,358,670.04, or an average cost per capita of 5.7 cents.

Accompanying this report is an estimate of the appropriations for census purposes for the fiscal year ending June 30, 1903; also a statement from the disbursing clerk, showing the cost of producing the four principal reports of the Twelfth Census.

Respectfully submitted.

W. R. MERRIAM, *Director.*

The SECRETARY OF THE INTERIOR.

REPORT OF THE DIRECTOR OF THE CENSUS.

APPENDIX A.

Estimated expenditures of the Census Office for the fiscal year commencing July 1, 1903, and ending June 30, 1904, in accordance with the Act approved March 6, 1902.

1 Director	\$6,000	
4 chief statisticians, at \$2,500 each	10,000	
1 chief clerk	2,500	
1 disbursing clerk	2,500	
1 stenographer	1,500	
4 expert chiefs of division, at \$1,800 each	7,200	
6 clerks, class 3	9,600	
10 clerks, class 2	14,000	
		\$53,300
250 clerks, class 1	300,000	
205 clerks, \$1,000 each	205,000	
90 copyists, \$900 each	81,000	
1 clerk	720	
4 skilled laborers, at \$1,000 each	4,000	
1 skilled laborer	900	
1 skilled laborer	840	
1 skilled laborer	780	
1 skilled laborer	720	
10 watchmen, at \$720 each	7,200	
6 messengers, at \$840 each	5,040	
13 assistant messengers, at \$720 each	9,360	
15 unskilled laborers, at \$720 each	10,800	
35 charwomen, at \$240 each	8,400	
		634,760
Special agents to secure information for special reports and expenses of the same	160,000	
Rental of quarters	26,600	
Stationery	10,000	
Furniture, carpets, ice, lumber, hardware, dry goods, advertising, telegraphing, expressage, horses and wagons, feed for and shoeing of horses, diagrams, awnings, shelving, file cases, file holders, office furniture, fuel, light, and other absolutely necessary expenses	15,000	
For the purchase of law books, books of reference, periodicals, manuscript, investigation of census work in other countries, etc., to be made a specific item in appropriation bill	5,000	
Printing and binding of census reports and miscellaneous printing and binding	250,000	
Transcripts of registration records	14,000	
Rent of tabulating machines	10,000	
Total		1,178,660

NOTE.—It is estimated that there will be left unexpended on June 30, 1903, out of the sum which by the provision in the sundry civil act approved March 6, 1902, was made available for the expenses of the permanent Census Office, about \$350,000.

APPENDIX B.

Statement prepared by Jno. W. Langley, disbursing clerk of the Census Office, showing cost of the Twelfth Census from March 3, 1899, to June 30, 1903, inclusive.

Appropriations:	
Act of March 3, 1899	\$1,000,000.00
Provision under the sundry civil bill for fiscal year ending June 30, 1901	9,000,000.00
Provision under the sundry civil bill for fiscal year ending June 30, 1902	3,516,210.00
Total appropriations	13,516,210.00
Receipts under section 30, Act of March 3, 1899 (sale of statistics)	1,414.56
	13,517,624.56

REPORT OF THE DIRECTOR OF THE CENSUS.

Disbursements to June 30, 1902:

By special disbursing agents for Alaska \$69,251.05

Disbursing clerk (to June 30,
1902, inclusive)..... \$11,571,171.66Disbursing clerk (disbursed since
June 30, 1902, on liabilities in-
curred prior to July 1, 1902)..
123,978.79

11,695,150.45Less credits on same (disallow-
ances refunded and stationery
returned to Interior Depart-
ment)

6,874.30

11,688,276.15

\$11,757,527.20

1,760,097.86Railroad accounts settled by Auditor for the Interior
Department.....

6,606.87

Telegraphic accounts settled by Auditor for the In-
terior Department.....

6,155.74

12,762.61

1,747,334.75

Estimated outstanding liabilities incurred prior to July 1, 1902.....

84,528.10

Balance to credit of the appropriation.....

1,662,806.65

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GOVERNMENT PRINTING OFFICE

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REPORT OF THE DIRECTOR OF THE CENSUS.

UNITED STATES CENSUS OFFICE,
Washington, D. C., July 15, 1903.

SIR: I have the honor to submit the following report upon the operations of the Census Office for the fiscal year ended June 30, 1903, on which date the relations of the Census Office to the Department of the Interior came to an end by transfer to the jurisdiction of the Department of Commerce and Labor, under the provisions of the act of Congress approved February 14, 1903.

I took the oath of office as the successor of Director William R. Merriam, resigned, on the 8th of June last, so that I have been in charge of the Census Office but twenty-three days of the fiscal year to which this report relates.

I found the work of the office progressing efficiently and satisfactorily, under the provisions of the act for the establishment of the permanent Census Office, approved March 6, 1902. The first complete year of operation under the law is covered by this report.

CLERICAL AND FIELD FORCE.

June 30, 1903, the last day of your jurisdiction, the employees of the Census Office numbered 747, classified as follows:

Chief clerk, Edward McCauley.
Chief statistician for population, William C. Hunt.
Chief statistician for manufactures, William M. Steuart.
Chief statistician for agriculture, Le Grand Powers.
Chief statistician for vital statistics, William A. King.
Disbursing clerk, John W. Langley.

Expert chiefs of division	4	Skilled laborers	11
Clerks, class 3	6	Watchmen	10
Stenographer	1	Messengers	5
Clerks, class 2	10	Assistant messengers	12
Clerks, class 1	296	Unskilled laborers	15
Clerks, \$1,000	263	Charwomen	36
Clerks, \$900	72		

There were also upon the rolls of the Census Office 689 special agents, most of whom were employed temporarily in the South for the purpose of collecting statistics of cotton production.

DISBURSEMENTS.

The total amount of disbursements for the permanent Census Office during this year was \$1,282,996.28, as shown by the report of the disbursing officer of the Census Office, which is attached as an appendix

to this report. To this sum should be added the accounts chargeable against the fiscal year ending June 30, 1903, which have been presented for payment, amounting to \$60,485.65, making, since July 1, 1903, the total cost for that year \$1,343,481.93. It is estimated that the cost of printing ordered during the same year, but according to information obtained from the Government Printing Office, not begun until after the end of the year, and therefore chargeable to the appropriation for the fiscal year ending June 30, 1904, will be about \$70,000. The total cost of the Census Office from its organization under the act of March 3, 1899, to the close of the last fiscal year was \$13,115,439.27. The cost of carrying on the work of the office for the fiscal year covered by this report was \$402,268.29 less than the appropriations available for that purpose. Under the provisions of the act to supply deficiencies in the appropriations for the fiscal year ending June 30, 1903, approved March 3, 1903, as construed and interpreted by the Attorney-General of the United States, at your request, the whole of this unexpended balance is available for general census purposes during the fiscal year ending June 30, 1904. Adding this unexpended balance to the regular appropriation voted by Congress for the conduct of the Census Office for the current fiscal year, \$1,183,260 (which includes the allotment of \$250,000 in the appropriation for public printing and binding for that year), we have the total sum available for that purpose of \$1,585,528.29 or \$242,046.36 in excess of the total expenditures for the fiscal year ending June 30, 1903.

SUPPLEMENTAL REPORTS.

The act of Congress under which the Twelfth Census was taken required that the reports relating to the four main subjects of census inquiry—population, agriculture, manufactures, and vital statistics—should be completed and published on or before July 1, 1902; and my predecessor, in his last annual report to you, was able to make the gratifying announcement that this provision of the law had been substantially complied with. The schedules of the Twelfth Census, however, contain a great deal of valuable and interesting data collected in accordance with the law, the complete compilation and publication of which was physically impossible within the time limit above referred to. The information comprised in these data is desired by the public, and its publication is essential to a perfect census; the Director accordingly ordered its compilation. Work upon these supplemental reports of the Twelfth Census has been continued throughout the fiscal year, chiefly in the division of population, under Mr. William C. Hunt, chief statistician.

One of the most important lines of supplemental investigation in this division has been the preparation of a report on occupations (containing statistics in the main resembling those presented for the Eleventh Census), which is now nearing completion and will be published during the present year.

The statistics of occupations appearing in the main report on population were limited to tables presenting details for the United States and for each state and territory, and condensed facts for principal cities, concerning the number of males and females 10 years of age and over engaged in each specified occupation and in each of the five main groups of occupations. In the supplemental report about to be pub-

lished will appear the detailed classification of persons engaged in gainful occupations in 1900, according to general nativity, color, age, conjugal condition, parentage, and months unemployed. The general tables of this report are now in type and occupy 763 pages.

The greater portion of this space is devoted to two tables, Nos. 41 and 43, the former relating to states and territories and the latter to cities having a population of 50,000 and upward. These tables together occupy 488 pages. They present in detail figures for each sex separately, and the number of workers in the principal occupation groups, classified successively by general nativity, color, age, conjugal condition, parentage, and period of nonemployment.

The division has also been engaged in the further verification and tabulation of the statistics derived from the answers to the two inquiries on the population schedule relative to the number of children born and the number living at the time of taking the census in June, 1900. Similar information was collected at the census of 1890, but it was not tabulated on account of the temporary organization of the office, which practically went out of existence early in 1895, following the publication of the general results of the Eleventh Census.

This work relative to children born and living at the Twelfth Census, in accordance with the plan now being followed, contemplates the limitation of the tabulations, first, to married women both of whose parents were born in the same country and whose husbands were living with them at the time the census was taken, because the census does not enumerate persons where they are "present" but at their usual place of abode, so that husband and wife were enumerated as a part of the same census family; second, to a subdivision of this class of women according to (a) color (white or black), (b) general nativity (native or foreign born), (c) parentage (both parents born in the United States or in 1 of 19 foreign countries), (d) nativity and parentage of husband (same nativity and parentage as wife), (e) age of wife (quinquennial period), and (f) duration of marriage (number of years married to present husband); and third, to a tabulation for each of these groups according to the number of children born and living.

The sorting of the cards in numerical order by enumeration districts, preparatory to the work of transcription (by punching) already outlined, involves the successive handling of about 13,000,000 cards according to each of the gang-punch "fields" and by card numbers, and of this work very nearly four-fifths has been completed.

A considerable force of the division of population was employed, particularly in the earlier months of the fiscal year, in a general revision of the posting sheets from which were derived the tabular presentation included in the Report on Population, in order not only to condense matter that must be retained as a part of the permanent records, but also to make it permissible to destroy a large number of result slips which otherwise would have to be stored and cared for.

STREET AND ELECTRIC RAILWAYS.

The division of manufactures, of which Mr. William M. Steuart became chief statistician on my resignation of that office on the 1st of March last, has been chiefly engaged during the year in the preparation of certain of the special reports authorized by section 7 of the act for the establishment of the permanent Census Office. A pre-

liminary bulletin on Street and Electric Railways has already been issued, to be followed in the fall by a complete report. This report covers the fiscal year ended June 30, 1902. There were then 817 operating street and electric railways in existence and also 170 lessor companies, making a total of 987 companies from which schedules were received. These statistics present in detail the description of the physical equipment of each railway; also the capital stock, funded debt, cost of operation, maintenance, income, etc.

MINES AND QUARRIES.

The division has been engaged since February in the field work of the census of mines and quarries. This census has been conducted in cooperation with the United States Geological Survey, which collects and publishes annually the statistics of the production of the different minerals. The special agents of the Survey and Census Office have been working together in the collection of these statistics, and the field work is now practically completed. Returns have been received from 22,061 mines and quarries, of which 15,624 are for mines and quarries in active operation during 1902. The examination and correction of the schedules have been carried on simultaneously with their collection. The tabulation of the mining and quarrying statistics will shortly be under way, and the report should be published before the close of the present calendar year.

ELECTRIC LIGHT AND POWER PLANTS.

Simultaneously with this work the field work for the special Report on Electric Light and Power Plants has been completed. Returns were secured from 3,741 plants of this character, which present, in detail, statistics similar to those for street and electric railways. The returns have all been tabulated, and the report will soon be ready for publication in bulletin form. A related inquiry is that concerning police patrol and fire alarm telegraphs, reports from 700 cities in which these systems prevail having been received and prepared for tabulation. The related report upon telephone and telegraph companies is also under way. These several inquiries will occupy the division of manufactures during the greater part of the coming fiscal year; and another inquiry—that on transportation by water—has been assigned to this division, and will be undertaken as soon as practicable.

EMPLOYEES AND WAGES.

The division has also completed, during the year, a special Report on Employees and Wages in manufacturing establishments, under the supervision of Dr. Davis R. Dewey, expert special agent, of the Massachusetts Institute of Technology, Boston, Mass. This special report was ordered by my predecessor, upon my recommendation, after the fact had developed that the statistics of manufactures for the Twelfth Census, as taken upon the schedule prepared for that census, and by the methods which must govern a general census, afforded no trustworthy indication of the actual trend of wages in manufacturing between census years 1890 and 1900. It was believed that the public expected from the census definite and trustworthy information on this

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subject, and it was found that it was possible to furnish such information only by the use of a special schedule, and by its application to typical establishments in the several branches of industry located in the different sections of the country.

The report contains statistics of the number of employees receiving specified daily, hourly, and weekly rates of pay. The tables are comparative, and are based upon actual transcripts from the pay rolls of representative establishments for the years 1890 and 1900. The statistics are classified according to occupations and localities, the comparisons being made for the purpose of showing the increase or decrease in the number employed at specified rates of pay for the same occupation in different localities. Large tables, occupying about 1,100 pages are now in type and the analysis is in manuscript. The report will be printed and ready for distribution early in the month of October, 1903.

The treatment of these comparative pay rolls by Dr. Dewey is novel in character, and it is believed that the results will be found much more satisfactory and conclusive than any which have ever before been obtained by a census of manufactures. The material has been collected in such form that it will be possible to continue the investigation along the identical lines in 1905 and at subsequent censuses, in such a manner as will make the report a scientific barometer of the rise and fall of wages in the principal manufacturing industries from decade to decade.

COTTON PRODUCTION.

Another branch of work intrusted to this division has been the collection of the statistics of the quantity of cotton ginned in the United States from the crop of 1902, in accordance with the provisions of section 9 of the act establishing the permanent Census Office. Compliance with this provision of law has required the employment of 626 local special agents, located in as many counties throughout the cotton-growing states, and also a considerable office force. Three bulletins were issued during the cotton-ginning season. The first covered the cotton ginned up to October 18, the second to December 13, and the third the quantity ginned from the entire growth of 1902. In addition to the collection of the statistics the field and office force perfected the official list of gineries, which now contains the names of 32,753 gins, of which 30,948 were active during the season of 1902. The collection of these statistics required that three reports should be obtained from each of these gins, making a total of 92,844 reports, which were obtained by a personal visit to each gin. The rapidity with which this vast number of reports was secured, transmitted to the Census Office, tabulated, added, and the results made public, is an indication of the perfection of the machinery for the collection of statistics of this character.

The cost of the field service required in this inquiry for the season of 1902 was \$58,080. For the crop season of 1903 five reports are contemplated, and the cost of the service will this year be increased accordingly, and will reach approximately \$97,500. In view of the enormous importance of the cotton crop, and the advantage to planters and consumers which comes from early and accurate information as to the size of the crop, it is believed that this annual expenditure on the part of the Government is warranted. The Census Office wa

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enabled, by its perfected machinery, to give the public an accurate and final statement of the size of the crop of 1902 as early as April 1 of the present year, which was five months earlier than this important information has ever before been available from any commercial source. Its important bearing upon the cotton market, in a season of such unusual activity as that through which we have passed this year, is apparent.

WEALTH, DEBT, AND TAXATION.

The agricultural division of the office, under the direction of Mr. Le Grand Powers, chief statistician, has been chiefly engaged, since the completion of the report on agriculture, in the general investigation relating to wealth, debt, and taxation, authorized by section 7 of the census act. The plans of the division contemplate the completion of this great and important statistical work in about three years' time. During the past year the general scheme for the work has been planned, the schedules have been prepared, and a substantial beginning has been made in the collection of the statistics. Since April 1 a field force of about 50 clerks and special agents has been at work collecting the statistics of public receipts, expenditures, assessments, and taxation. This force has been increased since July 1 to about 80 agents, and it is expected that the greater portion of the field work will be completed during the month of November next. The results will be tabulated and presented from time to time in the two years following.

The division has also employed about 20 clerks in carrying out the provisions of joint resolution (H. R. Res. 182) passed at the first session of the Fifty-seventh Congress. This resolution authorized the Director of the Census

to complete and bring up to date of the crop year of 1902 the statistics relating to irrigation, the area of land reclaimed, the cost and value of the work, and such other information as can be obtained bearing upon the present condition of irrigation.

The report on irrigation is nearly completed and the results will be embodied in a special bulletin to be issued in October.

An important feature of the work of this division has been a special investigation ordered by Director Merriam reviewing carefully the results of the census of agriculture, with several objects in view. The investigation sought to ascertain if methods can not be devised for shortening the time required for tabulating and presenting the results of the agricultural census. It also sought to reach definite conclusions as to the margin of error under existing methods in the agricultural statistics of the census. It is expected that the results of this special investigation will be embodied in a bulletin to be issued during the current year.

BIRTHS AND DEATHS IN REGISTRATION AREAS.

Provision was made in the original census act of March 3, 1899 for further reports concerning births and deaths in registration areas, subsequent to the regular Twelfth Census report, and section 8 of the act of March 6, 1902 directed that these statistics should be collected annually, the data to be obtained from the records of such states and cities as maintained a satisfactory system of registration. Both of these acts authorized the Director to decide what areas should be

included. As the registration of births is too defective to supply sufficiently complete and accurate data, it was decided that the reports to be prepared should be limited for the present to mortality statistics. The division of vital statistics, under the direction of Mr. William A. King, has had immediate charge of this work and has made important and interesting progress.

The collection of statistics upon this subject is attended with considerable difficulty. Few states possess effective registration laws, and those laws which are in operation differ widely in scope and requirement. The resulting variations in returns, the delays, and the lack of uniformity in methods of local administration, have made it almost impossible for the Census Office to secure either prompt responses or comparable returns. As the requirement for annual reports upon births and deaths in registration areas contained in the act creating the permanent Census Office made prompt, uniform, and accurate returns a necessity, the Census Office has been compelled to take the lead in a movement for the extension of registration areas, for improvement in records and methods, and for greater uniformity.

In conjunction with the committee on demography of the American Public Health Association, a circular was prepared outlining the essential features of an effective law for the registration of deaths, as a guide for future legislation; the "international classification of causes of death," recommended by the International Congress of Hygiene and Demography, and adopted by most of the registration states and cities was recommended for the annual reports, and a manual was prepared and published giving a description of the titles and a complete index covering nearly 2,000,000 cases reported at the censuses of 1880, 1890, and 1900, showing under which title each case reported should be compiled.

To enlist the support and assistance of the prominent organizations most interested in these statistics, resolutions were prepared and presented to the American Public Health Association, and were adopted. The American Medical Association and the conference of state and provincial boards of health approved the movement begun by this office to promote the extension of registration and to secure uniformity in results, and committees were appointed by each of these bodies to cooperate with this office and with each other for the same purpose. A resolution was also drafted and presented to Congress approving the movement and requesting the favorable consideration and action of state authorities "to the end that the United States may attain a complete and uniform system of registration." This resolution was adopted by Congress and was approved by the President, February 11, 1903.

The Census Office then issued a pamphlet entitled "Legislative Requirements for Registration of Vital Statistics." This was sent to the governors of all states which do not have effective laws on the subject, and elicited numerous replies indicating a purpose to recommend legislation.

Three other pamphlets designed to advance the movement for uniformity were prepared and have been published by this office: "Practical Registration Methods," designed for the instruction and use of local registrars, to 5,280 of whom it was dispatched; "The Relation of Physicians to Mortality Statistics," sent already to 66,714 physicians; and "Medical Education in Vital Statistics," sent to every medical college and school in the country.

In consequence of this movement for uniformity most of the registration states and many of the cities have already adopted the "standard certificate"; many others have expressed their intention of adopting it, together with other suggestions as to improvement in methods, as soon as practicable. In several states amendments to existing laws that will have a most beneficial effect have been secured in accordance with suggestions made.

In the meantime the collection of the data for the annual reports, through transcripts of the registration records, has been carried on.

Great difficulty was experienced in obtaining complete and prompt returns from many places, particularly from the smaller cities. It was found impossible to secure full returns from the book records usually kept by local officers, and the maximum rate of compensation for transcription allowed by the census law (2 cents per name), in many cases proved insufficient to induce the officials to go behind the book records and supply the data required from the original certificates.

In order to make the annual mortality reports of the greatest possible value, the Census Office is securing the opinions of experts concerning the scope of the reports and the forms of tabulated statistics. When these important preliminaries have been settled the compilation can proceed rapidly.

The returns for the calendar year 1900 were all in hand at the beginning of the year, and work upon the report for this year was commenced early in July, 1902. These returns have been compared for duplications, transfers have been made, the cases edited, and the cards punched. Excluding stillbirths, which are not compiled as deaths, the number of deaths represented is 539,939. After punching, the cards were verified by a run on the automatic machine, and subsequently, by a comparison with the transcript.

The use of the automatic tabulating machine facilitates the counting of the cards to such a degree that it was determined to run the cards over and over again and to obtain by this process the aggregate tables that have been heretofore secured by a "hand consolidation" (that is, by drawing off the figures from one result slip after another and adding the columns). A test was made of the comparative time and cost of securing aggregate tables in this way, and it was found that results which, as secured by hand-consolidation work in the preparation of certain tables for the regular census report, actually required 36,600 hours of work, or the equivalent of three men for five years and five months, and costing \$14,645, could be performed by three men using three automatic machines in 630 hours, or about three months, and at a total cost of \$4,382, or in about one-twentieth of the time, and for about one-third of the cost.

In pursuance of this plan, the cards have been counted and recounted on the machines for eight different forms of result slips, the aggregate number of cards counted being 7,391,122. The machine work for all the tabulations involving the whole number of the cards used in compiling the first report has been completed, leaving unfinished only the occupation and other details, which require the handling of but a part of the cards.

The returns for 1901 are now being compared and edited.

A complete card index, including cross references of causes of death, classified in accordance with the international classification, was prepared for reference in future cases. This list comprises 22,152 cards, and makes 435 pages of closely typewritten matter.

OTHER BRANCHES OF WORK.

The work of the division of methods and results during the year comprised three distinct branches:

1. The editing of all matter published by the Census Office, the reading of proofs, and the supervision of printing. This work includes the careful editing of copy, the reading and correcting of proofs, the determination of questions of style and typography, the checking of expenditures for printing, as well as the general oversight and direction of the movement of matter in process of publication.

The printing required in census work is very extensive, the appropriation for the coming year being \$250,000. The more important and expensive part of the work is naturally the publication of the census reports and bulletins. But the miscellaneous printing is large in amount and varied and exacting in character, including not only the forms, blanks, and letter heads ordinarily used in the routine work of a large office, but also the elaborate schedules of inquiry, the circular letters, the instructions to special agents, the tabulation sheets, and similar forms required for the conduct of the special investigations assigned by Congress to this office.

2. The preparation of a report presenting a correlation and analysis of some of the more important results of the Twelfth Census. This work is a further interpretation of statistics already published. Its aim is to carry on the discussions of the several topics from the points where they have been left by the writers of the main census reports, and to bring into connection, where that has not already been done, the results stated in the separate reports, making international comparisons in those cases where they are safe and enlightening, and presenting the whole from a fresh standpoint with those differences of treatment naturally resulting from a different authorship. This report is being prepared under the direction of Prof. Walter F. Willcox, of Cornell University. Two chapters have already been published in bulletin form, the one (Twelfth Census Bulletin No. 149) being a discussion of area and population, and the other (Census Bulletin 4) a discussion of increase of population.

3. Preparation of the Abstract of the Twelfth Census. The Abstract is an epitome or digest of the contents of the 10 volumes of the Twelfth Census, and is designed for the use of the general public who may not have access to the main volumes, or may find this digest more convenient for ready reference. This work was prepared under the supervision of a committee consisting of the present Director, at that time chief statistician for the division of manufactures, Prof. Walter F. Willcox, and Mr. Henry Gannett. The Abstract was published in November, 1902. An edition of 35,000 copies was printed. It is proposed to incorporate in later editions of the Abstract the results of the special investigations upon which the Census Office is now engaged, in compliance with the provisions of section 7 of the act to establish a permanent Census Office. No publication similar to the Compendium of the Eleventh Census is contemplated. It is believed that the Abstract contains in a much more convenient form all the statistical material required for ordinary use.

The geographical division has been principally employed in the preparation of a Statistical Atlas of the United States at the Twelfth Census. This atlas is now in the Government Printing Office, and will be published during the month of September. It corresponds to the

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Statistical Atlas of the Ninth and Eleventh censuses, but is quarto in form, uniform in size with the 10 volumes of main reports.

The geographical distribution of the population was compiled in this division, and Bulletin 1 (being the first bulletin of the permanent Census Office) was issued March 3, 1903. The division also compiled data from the enumerators' accounts of the Twelfth Census, showing the average earnings of each enumerator, the total amount expended in per diem and per capita districts, and the amount paid in per capita districts for each of the four branches of the enumeration. Other work which occupied the division was the computing of the areas of counties, the arranging and indexing of the records and schedules of the Eleventh Census, transferred to this office from the Department of the Interior, and other work of a miscellaneous character.

The mailing division has had charge of the distribution of all of the census publications. Since the organization of the office there have been distributed 3,592,638 copies of bulletins, containing advance information of census results. Of the final reports of the Twelfth Census, an average of about 11,000 copies of each volume have been distributed, and of the Abstract about 25,000 copies.

Attached to this report is the financial statement of John W. Langley, disbursing clerk, and also a statement (Appendix B) showing the distribution of the cost of the office between the several divisions.

Respectfully submitted,

S. N. D. NORTH, *Director.*

The SECRETARY OF THE INTERIOR.

APPENDIX A.

Report of John W. Langley, disbursing clerk of the Census Office, showing expenditures of the permanent Census Office for the fiscal year ended June 30, 1903, and the unexpended balance of the appropriation; also the estimated amount that will remain to the credit of said appropriation after payment of all liabilities incurred prior to June 30, 1903.

Unexpended balance of appropriation as shown by Appendix B to the report of the Director of the Census to the Secretary of the Interior under date of November 1, 1902	\$1,747,334.75
Payments chargeable against the fiscal year 1902, made subsequent to date of report above mentioned	1,667.53
	<hr/> 1,745,667.22
Receipts during fiscal year 1903 from sale of transcripts of census records	83.00
	<hr/> Total amount available for expenses of the fiscal year 1903.....
	<hr/> <hr/> 1,745,750.22
Payments chargeable against the fiscal year 1903:	
By disbursing clerk	\$1,274,544.44
Auditor for the Interior Department:	
Transportation accounts	8,336.04
Telegraphic accounts	115.80
	<hr/> 1,282,996.28
	<hr/> <hr/>

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Unexpended balance of appropriation on June 30, 1903	\$462,753.94
Accounts chargeable against the fiscal year ending June 30, 1903, paid subsequent to July 1, 1903	29,761.03
	<hr/> 432,992.91
Accounts chargeable against the fiscal year ending June 30, 1903, in hands of disbursing clerk, but not yet paid	30,724.62
	<hr/>
Balance of appropriation available for fiscal year ending June 30, 1904	402,268.29

APPENDIX B.

*Cost of the Census Office, by divisions, during the fiscal year ending June 30, 1903, as shown
by disbursements for that period.*

Payments by John W. Langley, disbursing clerk, Census Office:	
Amounts not chargeable by divisions (including all disbursements for furniture and fittings, rent, printing, and stationery)	\$193,791.35
Administration divisions ^a	184,895.80
Population division	194,766.25
Vital statistics division	94,583.73
Manufactures division	386,074.19
Agricultural division	148,327.85
Methods and results division	72,146.14
	<hr/> 1,274,585.41
Less disallowances collected	40.97
	<hr/>
Total payments by disbursing clerk	1,274,544.44
Payments by the Auditor for the Interior Department:	
Transportation accounts—	
Manufactures division	\$5,368.11
Agricultural division	2,856.63
Vital statistics division	101.30
Administration divisions	10.00
	<hr/> 8,336.04
Telegraphic accounts	115.80
	<hr/>
Total payments chargeable against the fiscal year ending June 30, 1903	1,282,996.28

^a "Administration divisions" includes the following: Director's office, chief clerk's office, appointment division, disbursing office, geographical division, division of correspondence and mail, and division of publications.